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COMPARISON BETWEEN SELECTED CHARACTERISTICS AND PERFORMANCE
OF PROVISIONALLY AND PROFESSIONALLY CERTIFIED BEGINNING
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THIS STUDY COMPARES SELECTED PERSONALITY CHARACTERISTICS AND TEACHING PERFORMANCES OF PROFESSIONAL TEACHERS (WITH SPECIFIED EDUCATION COURSES) AND PROVISIONAL TEACHERS (WITHOUT THE EDUCATION SEQUENCE) IN GEORGIA. THE STUDY CONSISTS OF TWO PARTS--(1) A LONGITUDINAL STUDY WHICH FOLLOWED A 1964-65 GEORGIA BEGINNING-TEACHER POPULATION FOR THREE YEARS, AND (2) AN INTENSIVE STUDY WHICH COMPARED CHARACTERISTICS AND PERFORMANCES OF SAMPLES OF BEGINNING TEACHERS. PART II TESTED THE HYPOTHESIS THAT PROFESSIONAL TEACHERS DO NOT DIFFER FROM PROVISIONAL TEACHERS IN SELECTED CRITERIA. A CONCEPTUAL MODEL WAS PROPOSED THAT PROFESSIONAL TEACHERS DIFFERED FROM PROVISIONAL TEACHERS (1) VERY MUCH ON "CHOICE OF VOCATION" FACTORS, (2) SOMEWHAT LESS ON "TEACHER PREPARATION PROGRAM" PERCEPTIONS, (3) VERY LITTLE ON REACTIONS TO FIRST-YEAR TEACHING EXPERIENCES, AND (4) VERY MUCH ON "FUTURE PLANS" OPINIONS. THE MODEL WAS CONFIRMED IN BOTH LONGITUDINAL AND INTENSIVE STUDIES. IN PART II, THE MAIN VARIABLES WERE FOUND TO BE TEACHER SEX, CERTIFICATE STATUS, TEACHING FIELD, AND PLACE OF TRAINING. PROFESSIONAL TEACHERS WERE RATED BY TRAINED OBSERVERS AS MORE SYSTEMATIC-RESPONSIBLE, MORE SKILLED IN THE USE OF TEACHING MEDIA, MORE COMPETENT IN NONSPECIFIC TEACHING BEHAVIOR, AND GENERALLY MORE COMPETENT. IMPLICATIONS FOR PRACTICES AND RESEARCH ARE ALSO DISCUSSED. (HW)

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September 1967

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U. S. DEPARTMENT OF
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Office of Education
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Comparison Between Selected Characteristics and Performance of Provisionally and Professionally Certified Beginning Teachers in Georgia

Project 5-1029-2-12-1
Contract OE-5-10-145

Joseph C. Bledsoe
Johnnye V. Cox
Reba Burnham

September 1967

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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University of Georgia

Athens, Georgia

Preface

Seeking ways and means to improve teacher education is a continuous endeavor of persons engaged in teacher education. These endeavors take the form of new procedures, new approaches to familiar procedures, evaluations, experimentation, research, and other promising practices. Historically, in Georgia much of this endeavor has been, and continues to be, a cooperative effort of teacher education institutions, the State Department of Education and the public schools. To a large extent these efforts have been coordinated by the Georgia Council on Teacher Education. Planning, initiating, and completing this study of selected characteristics of provisionally and professionally certified beginning teachers in Georgia is an outgrowth of the cooperative effort of these groups and their coordinating agency.

It is difficult to determine exactly the origin of the idea for this study. Certainly the prior cooperative efforts in improving teacher education in Georgia were instrumental in stimulating teacher educators to look for another approach to the continuing need for improvement. Also, a series of events, immediately prior to the actual beginning of the study, were significantly related to its origin and development.

1. The April, 1963, *Georgia Teacher Education News Bulletin* included such statements and questions as the following:

   > "It has been a long time since the Georgia Council on Teacher Education has engaged in cooperative research."
   >
   > "Is it time to plan for other cooperative research projects?" "The U.S. Office of Education is in the process of planning for 'Project Teacher Education'. Should Georgia have a part in the project?"
   >
   > "The U.S, Office of Education planning thus far includes five parallel areas of activities. How can Georgia participate in this project?"

2. In the fall of 1963, Dr. Joseph A. Williams, Dean of the College of Education of the University of Georgia, encouraged interested staff members to submit ideas and/or proposals for research in teacher education. Dr. Joseph C. Bledsoe of the College of Education staff was asked to coordinate these ideas and to prepare a proposal for study by the staff and others. In the November session of the Georgia Council on Teacher Education Dean Williams reported this progress of the college and proposed that the Seventeenth Annual Conference on Teacher Education (January, 1964) be devoted to studying the draft of the proposal prepared by Dr. Bledsoe.

3. The theme of the January Conference was *Project Teacher Education*. The Conference was jointly sponsored by the College of Education, the Georgia Council on Teacher Education, the Georgia State Department of Education, the Georgia Education Association and the

Georgia Committee on Teacher Education and Professional Standards. For two days, in general sessions and in study groups, representatives from the groups named above, studied the proposal prepared by Dr. Bledsoe and made suggestions for clarifying, extending, and improving the proposal. This conference study further fostered the commitment and cooperation of some 200 leaders in teacher education in Georgia.

4. Following the conference Dr. Bledsoe revised the proposal and it was submitted to the U.S. Office of Education. In July, 1964, the project was funded by the U.S. Office of Education as Project number 5-1029-2-12-1.

5. Although many staff persons of the College of Education were involved in the development of each phase of the project, only three persons were officially designated as project staff members-Dr. Joseph C. Bledsoe, Director, Dr. Reba Burnham, and Dr. Johnnye V. Cox. Each of these persons was assigned to the project for one-third time for the three-year duration of the project.

The events described above prepared the way for the project. During the three-year period of the project the sponsoring groups maintained their interest in and support of the project. Other groups, such as the Committee on Teacher Education of the Board of Regents of the University System of Georgia, the Georgia Association for Student Teaching, and the Georgia Department of Classroom Teachers, have manifested a continuing interest in the project. Many hundreds of persons -- public school administrators, curriculum directors, personnel directors, teachers, and students -- assisted with the project at the local school level. Research assistants and curriculum directors serving as special observers, assisted the project staff in collecting, processing, and analyzing the data of the study.

Special recognition and appreciation are due to these Georgia school personnel --

--the more than 16,000 students who responded to instruments for pilot studies and for the main study

--the more than 1,800 teachers who participated in the longitudinal study of the project

--the more than 470 teachers who participated in the depth study of the project

--approximately 200 teachers who participated in pilot studies to develop and test selected data gathering instruments

--the 196 school superintendents who gave support to the project at the system level

--the more than 500 principals who gave support to the project at the school level

--several hundred Future Teachers of America members, hundreds of college students in teacher education institutions, board members, and experienced teachers who participated in several related studies.

A number of persons who live and work outside the state of Georgia have rendered valuable services to the study. To Dr. Robert Poppendieck, Specialist in Teacher Education, Department of Health, Education, and Welfare, United States Office of Education, the staff is most grateful for his insights and suggestions in the preparation of the original proposal. Dr. David Ryans, Director of the Research and Development Center, University of Hawaii, spent three days with the project staff in January 1965, providing most valuable consultative services in addition to granting permission to use the instruments developed in the Teacher Characteristics Study. Acknowledgment is hereby also expressed to Professors Robert E. Bills, Fred Kerlinger, Robert Peck, Garth Sorenson, and Robert Veldman for their gracious permission to use materials which they had previously developed in their research.

The Staff of the Computer Center of the University of Georgia has provided invaluable services in developing programs and processing data. To Dr. James L. Carmon, Director, James Fortson, Dr. Charlotte Williams, Jane Heath, and particularly to Lois Shackelford, who understood our problems, gave unstintingly of her time and services, and helped so many students as well as the project administrative staff, our debt is hereby acknowledged.

The contributions of two other groups cannot be adequately described with only a note of recognition and appreciation. Twenty-four research assistants and 16 curriculum directors serving as special observers made and recorded results of more than 2,400 classroom observations of the participating teachers. The research assistants also helped with collecting, processing, and analyzing all data for the project. These persons were truly the task forces of the project.

To our colleagues of the College of Education and the College of Arts and Sciences of the University of Georgia who served on seemingly endless Advisory, Examining, and Reading Committees for doctoral students engaged in the Teacher Education Research Project, a note of special thanks is in order. The encouragement that they gave and the services they rendered often went beyond the call of duty and sprang from a genuine commitment not only to their own profession, but to the goals of the Teacher Education Research Project itself. They gave a part of themselves and "TERP" could not have been completed successfully without their contributions.

During the first year of the project, 1964-65, the research assistants were:

Iva D. Brown, Ralph Lightsey, James H. Swanson, and Robert E. Williams.

In the second year of the project, 1965-66, the assistants were:

Research Assistants

Frusanna S. Booth
Arvin D. Crafton
David L. Ewing
Vernon D. Gifford
Herbert M. Handley
Arthur Hughes

Special Observers

Ophelia Alsobrook
Frances Harris
Vera C. Houston
Bernard Hirshberg
Frances Johnston
Lola Lauff

Second year (Continued)

Research Assistants

Lucille G. Jordan
Sara M. Riggs
Arthur D. Strickland
A. L. Woodard

Special Observers

Eleanor Lee
Eleanor Newton
Anna Belle Tabor
Joy Lytle Wood

In the third year of the project, 1966-67, the assistants were:

Research Assistants

Jack Caldwell Carter
Ronald H. Griffith
Jo Ann S. Manley
Robert L. Sears
Macklyn A. Smith
Sidney Paul Smith
Charles David Stallings
Alton Edward Strang
Joe Raymond Trull
M. Austine H. Wallis

Special Observers

Lorene Clower
Eleanor Lee
Arthur Lee Cox
Willie Maude Nelson
Mary C. Collins
Doris R. White
A. L. Woodard

The services of several secretaries who have helped with the project have been invaluable. Among these were Jane Harvey, Linda Aiken, and Betty Mize. To Mrs. Margie Huff the project staff are especially grateful for typing the final report, coordinating materials and for her insight in anticipating and filling information gaps while the project director and staff were busy with teaching and consultations.

It is hoped that all participants in the project feel rewarded for their assistance in the project. To many persons the reward may only be the satisfaction of having helped to gain more and better information about beginning teachers. To others the reward may be in terms of new skills and knowledges which have been gained. To the twenty research assistants who completed doctoral dissertations related to the project their reward is evident. A special bibliography of these dissertations is included in the appendix.

Although the contributions of the consultants and research assistants are gratefully acknowledged, the project staff and particularly the project director assumes full responsibility for any errors in analysis and/or reporting.

The project staff is grateful to each individual and group who contributed to this study.

Joseph C. Bledsoe, Director
Reba M. Burnham
Johnnye V. Cox

Athens, Georgia
September, 1967.

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CHAPTER I

Introduction

Since the days of Protagoras (485-415 B.C.) and possibly even before, man has been self-conscious about teaching his young. Many debates (through the years) have no doubt involved the issue of whether teaching is an art or a science. Almost everyone seems to believe that he knows how to distinguish the competent teacher from the incompetent. Yet after centuries of debate and speculation, and from hundreds, perhaps even thousands of empirical studies, a definitive theory of teaching has not emerged. Perhaps the answers to the questions "What is an effective teacher?", "What is effective teaching?", and "How may effective teachers be prepared?", vary so much from one context to another and from one group to another that to find a simple answer is too much to expect. In the absence of a constructive "theory," man can only devise potential "theories" or "hypotheses" as he increases understanding of what good teaching is and how good teachers may be prepared.

There have doubtless been effective teachers since prehistoric times since children have learned from parents for many generations. It has been said that the large family is the best educational institution yet devised. As society has become more complex, however, the responsibility of achieving individual and societal goals and developing the complex skills needed for modern life has increasingly been extended to specially appointed persons who spend a major portion of their active energies in instruction. In simpler days, persons came along who were unusually effective perhaps because of a fortuitous combination of genetic qualities of temperament and intelligence and their unique experiences. The history of education has identified many of these persons. Jesus of Nazareth is deemed by many to be the greatest of them all, and is identified in the New Testament as "Good Teacher". Others have been identified by Broudy (1963) as "Historic Exemplars of Teaching Method". Among them were Protagoras, Socrates, Isocrates, Abelard, Thomas Aquinas, Quintilian, Comenius, Pestalozzi, Froebel, and

Herbart. These and many other teachers who taught so well "by ear" were concerned about the question of what is teaching. They attempted to inculcate in their students those qualities of heart and mind which would, as nearly as possible, insure the perpetuation of their ideas. Although formal teacher education or pedagogy as such is relatively recent, these great teachers or students of pedagogy were attempting to devise methods which would enable their students to be more effective. In short, they had aims which were essentially compatible with those of modern teacher education institutions: to prepare excellent teachers "by note" (that is to say, by systematic, deliberate planning). Pedagogy has become much more institutionalized and has responsibilities for producing far greater numbers of teachers (hopefully as many "excellent" ones as possible), but the aims are essentially similar to those of earlier times.

The Problem

The problem of this study was to compare selected personality characteristics and teaching performance of provisionally and professionally certified beginning teachers in Georgia. The study was conducted in two parts: Part I: a longitudinal study the purposes of which were to identify some characteristics of the populations of 1964-65 beginning teachers in Georgia and to follow samples of this group for three years; and Part II: a more intensive study in "depth" of characteristics and performance of samples of beginning teachers.

The two major comparison groups were the provisional four-year-certified (B-4) without the professional sequence in education and the professional four-year-certified (T-4) with the professional sequence. The pattern of teacher certification in Georgia makes it possible to categorize teachers in either of these and related discrete groups. Similar educational conditions exist in states without these precise categories, however, so findings may be widely applicable.

Part I of this study consisted of a compilation of information on the population of beginning teachers in 1964-65; such information included characteristics which could be obtained from existing records (Georgia Department of Education and teacher education institutions) and from questionnaires submitted to the system superintendents and to beginning teachers. Selected data concerning this group have been tabulated for the years through 1966-67 to determine what has happened to these teachers, particularly characteristics of those who remained and those who left the profession. During the first year this information was valuable in planning more effectively for Part II, the "depth" study.

Part II consisted of a study of samples of provisionally certified and professionally certified beginning teachers in terms of performance and teaching effectiveness. Although both phases of the study have direct bearing on what constitutes an effective teacher training program, Part II was planned to determine whether the professional sequence in teacher education tends to be associated with more effective performance in teaching.

Objectives

Part I had as the overall objective to assess the relevant characteristics of beginning Georgia teachers as a basis for the study in depth of samples of teachers representing the certification categories. Functional objectives of Part I included:

(1) to compile current facts on the general status of first-year teachers, especially facts on personal and professional traits and characteristics which may be helpful in analyzing and evaluating the problems of this special group;

(2) to describe and compare beginning teachers in the selected characteristics in terms of certification, sex, residence (Georgia - non-Georgia) and similar discrete categories;

(3) to examine certain implications that the first year of teaching service may have for the present critical shortage of classroom teachers;

(4) to contrast briefly perceptions of teachers expressing high degrees of satisfaction in teaching with dissatisfied teaching;

(5) to identify some of the possible factors that lead to early withdrawal from the teaching profession;

(6) to identify and compare selected characteristics of those who remain and those who leave the profession.

Part II proposed to test the following hypotheses:

(1) First-year teachers in Georgia with the professional certificate do not differ significantly from first-year teachers with the provisional certificate with respect to

  (a) "role expectancies," as measured by the Teacher Practices Questionnaire (Sorenson, Husek, and Yu, 1963).

  (b) self concepts as measured by the Bills' Index of Adjustment and Values.

  (c) personal and professional characteristics (as measured by Ryans' Teacher Characteristics Schedule).

  (d) performance as perceived by pupils (Veldman and Peck, 1963).

  (e) overt classroom behaviors of teachers (Classroom Observation Record, Ryans, 1960).

  (f) educational attitudes (Kerlinger, 1965).

Specific variables within each of these several scales are described more fully in Chapter 3.

Significance of the Study

The problem of what constitutes an optimum program of teacher education has long been of concern to educators. The professional sequence of foundation courses in psychology and/or sociology, curriculum and methods, and student teaching has been a fairly widespread practice in the United States for the past 25 to 30 years. The great increase in enrollment of public school pupils since the early 1950's has created a concomitant demand for teachers during a period when a productive economy has been competing for the available manpower. The question of whether teachers electing the professional sequence differ in characteristics and performance in the first year of teaching from those who do not is therefore an important one.

Providing sufficient numbers of adequately qualified teachers involves a logical sequence of four phases: selection, training, placement, and utilization. Each of these phases is complex, crucial, and relevant to the succeeding phase. Selection involves not only the personality traits of individuals including those which draw them toward or away from consideration of teaching as a career, but also the application of criteria both cognitive and non-cognitive of the training institution. In our society it is not presently feasible to determine the precise kind of persons required for teaching and force or even insist that these persons and only these persons enter teaching. At the present time, the supply-demand ratio is such that it is sometimes necessary to admit persons for training with the understanding that only approximately 70 per cent of these persons will actually enter teaching and a smaller percentage will remain beyond the first year. The motivations and other personality characteristics of teachers who remain and those who leave after a brief career are not precisely known and are exceedingly complex and varied. A person may not know himself whether he wants to teach until he has had actual teaching experience. His conception of teaching may be quite distorted from reality.

With respect to placement after the period of teacher preparation, the great variety of teaching situations, organizational climates of schools, varied abilities of the pupils, socio-economic differences among communities, differences in expectations at various grade levels and among the subject fields further complicate the problem. Differences in provisions for in-service education and the perceptions of these provisions by beginning teachers add still further difficulties to the problem of determining the most effective program of preparation. A more adequate understanding of what effective teaching performance is should provide valuable insights into the determination of an effective preparation program.

Assumptions

As with any study which proposes to arrive at generalizations and guides to future action, this study has been based upon certain assumptions. Among these are the basic postulates of science concerning nature and the psychological processes. Since the study of personality and behavior is less adequately established than some other fields of inquiry, it is important to mention briefly these fundamental ideas.

1. The study assumes that not all characteristics of teachers are unique, that some instances and circumstances have a repetitive quality, and that it is possible to classify and categorize events which may lead to appropriate generalizations. These generalizations may in turn provide valuable guides to future action. This postulate of "natural kinds" provides a basis for attempting to discover "laws" concerning dynamics of teacher behavior and personality.

2. It is further assumed that natural phenomena are determined and are not entirely due to chance or accident. While developments in modern science have questioned a rigidly interpreted determinism, this assumption continues to play an important role in research. If every event is capricious and no predictions about the future are possible, based upon knowledge of the past, the scientist is deprived of a means of attacking problems and discovering solutions capable of explaining other phenomena.

3. Natural phenomena maintain their essential character under specified conditions over a prescribed period of time. This relative orderliness and permanence does not imply rigidity, but rates of change are sufficiently gradual that study of data, verification, and application is not rendered useless.

4. In addition to the postulates of natural kinds, determinism, and constancy mentioned above, it is assumed that the psychological processes of perceiving, remembering, and reasoning are reliable. Although individual instances of perception, memory, and reasoning may be untrustworthy, man can and does obtain reliable knowledge through his sense organs (sensation) and interprets them reasonably accurately. Aware of how easy it may be to make errors, the scientist must check his work, develop instruments for weighing, measuring, timing, counting, and testing to verify his facts. Memory although not infallible is an important source of knowledge. Reasoning has its limitations, but is a valuable adjunct in the search for reliable knowledge.

As specifically applied in this study, it is assumed that the perceptions, memory, and reasoning of the subjects (teacher respondents) and of the observers and the pupils were reasonably accurate and reliable. Errors may have been made, but many of these could have been random errors, to some extent self-correcting. Known sources of bias were minimized.

5. The authors are aware of limitations of measurement in the field of teacher behavior and personality. Nonetheless it is assumed that the visible, perceptible behavior of teachers, the self-reports and the reports and observations of "others" are important determiners of behavior and are capable of valid and reliable measurement. The degree of precision of measurement is admittedly less than that to be desired, but one related objective of this research is to contribute to the development of more effective instrumentation in this field of inquiry.

6. It is assumed that the first year of teaching is a crucial one for many teachers. Although the induction into teaching logically follows the decision to teach, a period of preparation, and the obtaining of a position, the adjustment to the realities and demands of the situation are sometimes dramatic, even traumatic, for some teachers. The kind and amount of assistance, the degree of acceptance of the teaching colleagues, administrators, pupils, and parents, the nature of the community expectations are all factors of importance in determining the ease or difficulty with which the teacher adapts to the demands of the profession.

Limitations

Although the problem of this study is doubtless an important one, there have been a number of important limitations. Perhaps the most significant limitation has been that of methodology, or more specifically, the difficulties of measurement of the significant variables in personality characteristics and teaching performance. Aristotle said, "It is the mark of an educated man to expect only that degree of precision (in measurement) as the nature of the subject admits." It is admitted that the measurement techniques and instruments in these important areas are not as precise as would be desired. The lack of sensitivity in the instruments designed to measure self concept, teacher role expectations, teaching performance, attitudes, and the other important variables of this study may be such that real differences in teacher characteristics and performance may go undetected. Due to this limitation, the risk of Type II error is probably somewhat greater than that of Type I error.

In addition to and related to the methodological limitations were those due to semantic difficulties. Not all words have the same meanings for subjects (or significant "others," e.g., observers) and it was necessary to work within these interpretations. Persons must and do act, however, within their own personal (or "phenomenal") frames of reference which represent reality for them.

Verbal behavior, especially that which is self-reported, is not necessarily indicative of actual behavior. Many respondents, consciously or unconsciously, may provide that response which is likely to be "socially desirable" or "rewarding."

An important limitation also related to the problem of measurement in this dynamic area was the problem of the "halo" effect. In spite of deliberate efforts to observe individual behavioral characteristics of teachers and the careful avoidance of a "summary" appraisal, the assessment of observers tends to be somewhat global in character. The lack of independence of behavioral traits contributes to high inter-correlations among the subscales of the measuring instruments.

The peculiar biases of the observers and their fallibility in judgment constituted another potential "methodological" limitation. In spite of careful training, the observers may have had subtle biases, some of which they may have been unaware. Hopefully, many random errors may have been self-correcting.

The non-random nature of samples constituted an important limitation. Because of the necessity to request responses from the individual teachers and to obtain their permission to visit in their classrooms, teachers had a choice in determining whether or not to participate. It is possible and not inconceivable that the participating group had some characteristics which differentiated them from the total group. Inferences from characteristics of the samples would therefore be limited to the populations approximately similar to the responding group. The original invitations to participate were made by a random sampling from ten strata of teachers: professionally certified and provisionally certified in each of five subjects or levels. Since the professionally certified teachers outnumbered the provisionally certified teachers by an approximate ratio of 17 to 3, and since the research design called for approximately equal numbers of provisional and professional teachers, the samples were over-represented by provisional teachers as compared to the total beginning teacher population of the state.

Another limitation perhaps of less consequence than the previously mentioned ones was in the geographic limitation. Although the sample was restricted to beginning teachers in the state of Georgia, the available evidence indicates that approximately half of Georgia's beginning teachers for several years have come from other states. The high rate of mobility of the U. S. population, especially those in the young adult age range, coupled with the rapid growth of metropolitan Atlanta and other urban areas of the state, especially those around military bases, has caused the population to be more nearly characteristic of the nation than was true prior to about 25 years ago. Findings of this study would apply perhaps more directly to the southeastern United States. Since, however, the practice of granting provisional certification to teachers is quite typical of most states, findings of this study would apparently be of some value in other areas.

Since the groups of teachers about which more detailed data were assembled did not represent strictly random samples, it is necessary to draw inferences not so much by conventional arguments of statistical inference but by analogy; that is, any generalizations from this study to other areas or other populations would depend upon the degree to which those populations possessed characteristics similar to those of the subjects of this study.

The study has not provided for a deep probe of the motives for teaching of beginning teachers. It was assumed that the decisions to teach had been made and information was solicited as to the stated reasons for this decision. It was further assumed that the subjects were honest and that they were willing and able to communicate their motives for entering teaching. It was recognized that these motives were likely to be perhaps somewhat distorted toward those considered socially desirable and that there may have been a tendency to withhold those motives of which the subject may have been either unaware himself or unwilling to reveal. A further limitation of the study concerned the placement and utilization phases of launching a teaching career, that is, the variety of situations into which students entered. While the grade level and subject field could be identified, it was recognized that wide differences in organizational climates of schools and classrooms and abilities and value-systems of students occurred within each of these major groupings.

Among perhaps critical variables which were not adequately covered by this study were the following: (1) the real motives for teaching as contrasted to stated motives wherever these may be different; such "real" motives could perhaps be revealed only by an intensive probing in depth by use of projective techniques; (2) variables associated with such factors as the differences in teaching assignments, teaching situations, and organizational climates of schools.

Finally, the Static Group Comparison, Design No. 3 of Campbell and Stanley (1963) did not control for selection, differential mortality, and interaction of selection and maturation. There was no formal means of certifying that the certification groups would have been equivalent had it not been for their differential training. Since training was not the only variable, it may not necessarily have been the critical variable. Value systems, motives, needs, abilities, and other personal characteristics of the groups may have been among the crucial variables. Differential recruitment may have been involved. There may also have been different mortality rates, although in this study approximately equal numbers of provisional and professional teachers who agreed to participate in the depth study failed to complete the test instruments. The total mortality (i.e., loss of subjects) in Part II was less than three per cent of the entire group.

Theoretical Framework

Research on teacher behaviors and characteristics has been conducted within a wide variety of conceptual frameworks. Gage (1963) contends that for an investigation to be "research on teaching," it is both necessary and sufficient that the research deal with a central variable. Central variables are those which refer to a behavior or characteristic of teachers. In order to delimit the research to something more specific than educational research in general, at least one variable must consist of a central variable.

While definitive theories of teaching are not immediately available to direct the efforts of researchers of teacher behavior and characteristics, the basic concepts of role theory provide a broad frame of reference for this study. The concept of role has been used to describe the behavioral characteristics of teachers as indicated by their responses to the self-report instruments and as indicated by the observers of the teachers in the classrooms and by the pupil perceptions of the behavior of teachers.

Sarbin (1954) regarded a position in a social structure as a set of expectations or acquired anticipatory reactions. A person lives in an environment in which other people around him expect him to behave in a certain way. In turn, the person learns to expect or anticipate certain actions from others. These expectations are organized around roles which persons enact; thus they may be called role expectations. Two general kinds of expectations are found: rights and obligations.

Role was defined by Cottrell (1942, p. 617) as follows:

> A role (is) . . . an internally consistent series of conditioned responses by one member of a social situation which represents the stimulus pattern for a similarly internally consistent series of

conditioned responses for the other(s) in that situation. Dealing with human behavior in terms of roles, therefore, requires that any item of behavior must always be placed in some self-other context.

Role and position are regarded as interdependent concepts, but not identical. A role is simply a patterned sequence of learned actions or deeds performed by a person in an interaction situation. The actions which are patterned into roles are learned by two processes, intentional instruction and incidental learning.

Role expectations (Sarbin, 1954) may be analyzed in terms of actions. Analysis of the role expectations of teachers may reveal the potential action: teacher rewards student for a correct response to a question. Role expectations as anticipated actions or performance can be studied by means of questionnaires. One of the instruments used in the present study was developed to measure the expectations as actions in the position of a teacher. More specifically, the instrument (TPQ) requests the respondent to indicate the degree of appropriateness of suggested teacher actions in relation to pupils.

Role behavior is thought to be influenced by an individual's knowledge of the role, his motivation to perform the role, his attitude toward himself and the other persons in social situations (Krech, Crutchfield, and Ballachey, 1962). In the performance of his duties, depending on the circumstances, any teacher would assume a number of roles. Because every teacher has acquired a unique set of ideas, wants, attitudes, and interpersonal response traits, the way in which a teacher performs his various roles would be unique.

The role approach to teacher competence has been explored in a series of studies by Biddle and his associates (Biddle, 1961; Biddle and Simpson, 1961; Biddle, Rosencranz and Rankin, 1961; Rosencranz and Biddle, 1964; Biddle and Thomas, 1966) referred to as the Kansas City Teacher Role Studies. Biddle distinguished between the normative scale indicating prescription or approval of behaviors and the expectative scale, which is descriptive or subjective. Thus expectations vary only in "absolute value" while norms have a two-signed, "positive" and "negative" orientation. From more than 100 independent studies, Biddle and his associates reported the following major findings:

(Rosencranz and Biddle, 1964, pp. 256-258)

1. There exist broad teacher role stereotypes that are shared by nearly everyone.
2. Despite these broad stereotypes, there are significant differences among all respondent positions regarding teacher role.
3. There are also broad differences among types of community in roles held for the teacher.
4. Significant differences appear also among education students, students in other fields, and teachers regarding roles held for the teacher.
5. Accuracy and veridicality of role cognitions also showed significant differences depending upon respondent positions.
6. All types of role cognitions, levels of cognition, backgrounds, characteristics, and sentient object positions significantly differentiated the role cognitions held by respondents.

One of the most significant contributions of Biddle in the Kansas City studies was in the conceptualization and the development of tools and methodology.

Role theory while not new is still in process of development. As a theory, it is somewhat similar to personality theory in that general agreement is not presently evident on just what "role" entails, just as there is no consensus on a definition of personality. Charters (1963) has indicated that such a great number of related concepts has developed as a result of empirical use of the term that it is impossible to use the term definitively. The scientific weaknesses of role theory have been indicated by Deutsch and Krauss (1965, p. 173) "Of all the theories considered [in their volume] role theory is farthest from the ideal scientific theory described . . ."

As described by Deutsch and Krauss, (1965, p. 175) role theory is used in this study as follows:

1. The role consists of the systems of expectations which exist in the social world surrounding the occupant of a position -- expectations regarding his behavior toward the occupants of some other position. This may be termed the prescribed role.

2. The role consists of those specific expectations the occupant of a position perceives as applicable to his own behavior when he interacts with the occupants of some other position. This may be termed the subjective role.
3. The role consists of the specific overt behaviors of the occupant of a position, when he interacts with the occupants of some other position. This may be termed the enacted role.

The concepts of prescribed role, subjective role, and enacted role are not the exclusive property of any individual role theorist, but denote current usage of the term role.

Overview of Part I and Part II

The findings from Part I, the longitudinal study, are reported in Chapter 4. Included in this phase are the following subdivisions:

1. A description and comparison of gross characteristics of the September (1964) Population, including:
   (a) personal (organismic) characteristics such as sex, race, and certificate.
   (b) system of employment.
2. A description and comparison of the January (1965), January (1966), and January (1967) Populations of teachers with none, one, and two years of teaching respectively. (This is essentially for purposes of following the January 1965 Population.)
3. An extensive analysis of responses from more than 1,000 teachers of the September (1964) Population to the Georgia Study of Beginning Teachers Questionnaire, (GBTQ) including brief comparisons of satisfied and dissatisfied teachers, and comparisons of teachers teaching at certain levels and certain content fields.
4. A description and analysis of responses of a sample of teachers who withdrew after one year of teaching and a similar analysis of responses from a sample of teachers who remained in teaching for three years to the Teaching Appraisal Schedule.

Part II employs both multivariate analysis and nonparametric techniques to analyze responses on teacher behavior and personality characteristics of teachers, pupils, and trained observers of 470 teachers. The following specific studies are reported:

1. A multiple factorial analysis of variance design (Model I. Fixed Effects) to 25 dependent variables (teacher behavior and personality characteristics).
2. A chi-square contingency analysis of responses to the GBTQ employing selected independent variables (sex, certification status, field (or level) of teaching, and place of training (Georgia or non-Georgia).
3. Multiple discriminant analysis of 25 variables to predict the upper 27 per cent and the lower 27 per cent of teachers as determined by the classroom observation total scores. This analysis utilized a "stepwise" approach which permitted determination of the most effective discriminating variable, next most effective variable, until no significant difference is made by adding further variables to the analysis. This program is described in more detail in Chapter 3, "Procedures for Analyzing Data."

Definition of Terms

For the purpose of the study, certain terms are used with the following meanings:

Beginning teacher:	A teacher who is in his first full year of teaching beginning in 1964, 1965, or 1966; this term is used synonymously with first-year teacher.
September population:	The list of beginning teachers reported during the month of September in the years, 1964, 1965, and 1966 by system superintendents.
January population:	The list of beginning teachers reported by the Georgia Department of Education as being employed at the end of January in the years, 1965, 1966, and 1967.
Professional Certificate (T-4):	Certificate issued by the Georgia State Department of Education to a teacher who has completed four years of approved study including a planned, professional education sequence.
Provisional Certificate (B-4):	Temporary certificate issued by the Georgia State Department of Education to a teacher who has completed four years of study at an accredited college but who has not completed a planned, professional education sequence.

Planned, professional education sequence:	A program of study planned by a degree-granting college or university approved by the National Council on Accreditation of Teacher Education and/or the State Department of Education based on criteria approved by the Georgia Teacher Education Council and the State Board of Education.
Teacher characteristics:	A teacher's (1) intellectual abilities and skills, (2) concepts of self, (3) attitudes toward teaching role or education in general, and (4) personal and social qualities.
Teacher behavior:	A teacher's verbal behavior, gestures, voice qualities, and other perceptible movements which give direction and/or reinforcement to learning in and out of the classroom.
Significant:	Unless otherwise designated, results are considered significant at the .05 level of significance. Stated differently, a given result will be considered as significant if the likelihood of its occurrence under stated conditions is less than five per cent.

The following data-gathering instruments are described in greater detail in Chapter 3, but since their use is so frequent, the following acronyms are employed for purposes of brevity:

COR: Classroom Observation Record.

GBTQ: Georgia Study of Beginning Teachers Questionnaire.

IAV: Index of Adjustment and Values.

POSR: Pupil Observation Survey.

TAS: Teaching Appraisal Schedule.

TCS: Teacher Characteristics Schedule.

TERP Attitude Scale: The Kerlinger Education Scale VII, known locally as the Teacher Education Research Project Attitude Scale.

TPQ: Teacher Practices Questionnaire.

Organization of the Study

Chapter I has presented a brief introduction, statement of the problem, objectives and hypotheses, significance of the study, assumptions, limitations, definitions of terms, theoretical framework, overview of procedures, and organization of the study. Chapter 2 presents a review of related literature organized around the main headings: (a) studies of beginning teachers, and (b) the measurement of teaching performance and teacher effectiveness. Chapter 3 describes in detail the procedures for selection of subjects, the plans for gathering data, the description of instruments, the procedures involved in training of observers, and the procedures for analyzing data. Chapter 4 reports the findings of Part I and Chapter 5 gives the findings of Part II. Chapter 6 presents a brief summary with conclusions and recommendations.

CHAPTER II

Review of Related Literature

Research related to this problem has involved two major facets: (1) studies of beginning teachers, and (2) measurement of teaching performance or effectiveness. Research in the first area has been relatively limited, whereas a vast amount of research has been done on the various facets of teaching performance and effectiveness. This research has not however provided a definitive answer to this complex problem.

Studies of Beginning Teachers

The studies of beginning teachers relate to three major topics: Needs and Problems of Beginning Teachers; Education of Teachers; and Adjustment to Teaching. Descriptions of significant studies on these topics follow.

Needs and Problems of Beginning Teachers

The most comprehensive study of beginning teachers was conducted and reported by the Research Division of the National Education Association (1956). Based on a survey of 2,600 first-year teachers in urban systems in 1954-55, this survey reported that teachers declared their need for "much" or "some" help in nine general areas. In descending order, these needs were as follows: (1) keeping and preparing official records and reports; (2) understanding and using special school services; (3) understanding the goals of the school; (4) planning for and working with gifted and retarded children; (5) handling disciplinary problems; (6) understanding and using courses of study and curriculum guides; (7) making effective use of community resources; (8) developing better personal qualities; (9) getting acquainted with the community and its people.

Tower (1956) reported problems expressed by beginning teachers in the Indianapolis schools, Thomas (1957) listed the problems faced by and evaluated the pre-service programs of 200 secondary education graduates of the University of Utah. Trickler (1950) reported needs and evaluations by the supervising principals of 700 beginning secondary teachers in California.

Stone (1963) studied the personal and professional problems of 168 beginning junior and senior high school teachers who were in their first year of teaching. He reported that the most important problems, as indicated by the teachers were, in descending order: (1) motivating adolescents to achieve to capacity; (2) handling discipline in the classroom; (3) teaching slow or retarded classes; (4) establishing rapport with pupils while maintaining authority; (5) accepting erratic behavior and unpredictable emotional reactions peculiar to the adolescent; (6) finding time to do everything expected; (7) understanding what should be taught; (9) finding time for clerical duties; (10) finding time for planning and preparation; and (11) being aware of usual patterns of classroom management used in the school.

Kessler (1963) asked 100 beginning teachers and 10 supervisors who worked with the teachers to identify areas of greatest need of beginning teachers. Among the findings reported were: (1) the greatest number of beginning teachers, 84 of 100, indicated the need for help in "taking care of chronic disrupters"; (2) the smallest number, 14 of 100, needed help in "maintaining healthful conditions in the classroom"; (3) the greatest number of supervisors indicated beginning teachers under their supervision needed help in "improving the students' reading skills"; (4) the smallest number of supervisors indicated beginning teachers needed help in "maintaining healthful conditions in classrooms".

To ascertain the problems of beginning elementary teachers, Dropkin and Taylor (1963) undertook a survey of 100 teachers who had graduated from Queens College in 1960 and were teaching in elementary school. Problem areas, as ranked by the teachers were, in order of difficulty: (1) discipline; (2) relations with parents; (3) methods of teaching; (4) evaluation; (5) planning; (6) materials and resources; and (7) classroom routines.

Education of Teachers

Stout (1952) states: "Outstanding among basic weaknesses of beginning teachers is their lack of understanding of children to be taught." Another factor cited in his study was lack of cooperation. Thirty per cent of the administrators and supervisors listed this trait. Other traits listed in descending order were lack of tact, lack of initiative, and lack of patience.

His conclusions indicate that teachers fail because they lack adequate understanding of their students and are so unskilled in their efforts of dealing with the complex of human behavior. The problem does not seem to be one of deficient knowledge of subject matter.

Shuster (1955) found that teachers with temporary certificates in Virginia were rated as deficient by their principals, and as a result, he recommended that the certification of "untrained teachers" be discontinued. Cross (1955) found that beginning teachers teaching out of their field of certification were at a decided disadvantage.

Nelson (1956) in a discussion of the education of beginning science teachers stated: "By today's standards, which seem to define more broadly the role of a teacher in school and community life, subject-matter competence would appear to be only one of many competencies necessary for the science teacher's success."

Although the value of professional education in teacher education has been recognized, Nelson found that there is apparently still disagreement among high school administrators concerning the specific values of the professional courses. Five per cent of these individuals thought professional education courses could be omitted completely; 35 per cent expressed the opinion they were important enough to be taken if possible, and 60 per cent believed that they were a minimum essential for teacher training. In a similar study with teachers giving their opinions, Bond (1949) obtained similar results. The value placed upon education courses by the teachers was low as compared with ratings of other factors. Students teaching ranked eighth from the top of 23 factors and only five of the 23 factors were rated lower than education courses. Thirty-seven per cent of the teachers maintained that their professional education had been of little value to them.

The Florida Teacher Education Advisory Council (1958) reported an evaluation of the pre-service program of teacher education by first- and second-year teachers in Florida, using questionnaires and the Minnesota Teacher Attitude Inventory. Gray (1962) made a more recent study of 1,583 of the 2,407 beginning teachers in Florida using teacher self-evaluation, principals' evaluations, and performance on the MTAI as criteria of effectiveness. Hall (1962) evaluated teacher effectiveness of 38 beginning elementary teachers in Dade County, Florida by using measures of pupil growth (Stanford Achievement Tests) for 785 pupils. Hall concluded that fully certified teachers promoted greater achievement except for the area of arithmetic computation. Hours of professional education had consistently positive correlations with pupil gain on the achievement tests.

Beery (1960) compared 76 matched pairs of first-year provisionally and professionally certified teachers in Dade County, Florida. Using a modified form of *The Classroom Observation Record* developed by Ryans in his study of *Characteristics of Teachers*, Beery concluded that "completion of the professional sequence of education courses is reflected in more effective teaching, at least during the first year of teaching."

Dalton (1962) used the Roy C. Bryan *Student-Opinion Questionnaire* to obtain middle-grade pupils' reactions to ten teacher characteristics. She found that teachers rated more favorably on a five-point rating scale were teachers who had substantially more courses in education.

In New York State Lupone (1961) made a comparison of equal numbers of provisionally and professionally certified elementary teachers on the basis of seven dimensions of teacher competence as evaluated by their principals. The professionally certified teachers were found to be significantly superior at the .01 level of confidence in five of the seven areas. Gerlock (1964) reported a similar study in Florida of 201 professionally certified and 141 provisionally certified beginning secondary teachers to determine differences as judged by administrators in five areas of personal and professional competence. In four out of the five areas the ratings were significantly in favor of the professionally certified group.

Gittler (1963) studied the differences in professional characteristics of 59 teachers who participated in an Intensive Teacher Training Program for six weeks and 59 teachers who had completed a bachelor's degree program with professional certification. The measures used in the study indicated that no significant differences existed between the two groups.

Holliwell reported in 1964 that Dwight E. Beecher conducted a study of professionally and provisionally certified teachers in New York State. The subjects were 97 professionally certified beginning elementary teachers and 103 provisionally certified elementary teachers, some of whom had had prior teaching experience. Although no tests were reported for determining the significance of the difference in the two groups, Beecher claimed that the professionally certified teachers rated higher on teacher effectiveness than did the provisionally certified group.

Shim (1965), in a study of 89 teachers and the achievement of their pupils with certification or non-certification as a variable, found no significant difference in pupil achievement.

In a study of intern teachers, Haberman (1965) pointed out that some factors did not apparently discriminate between successful and unsuccessful interns. These factors were: (a) academic achievement as a graduate student, (b) communication skills, and (c) positive attitudes toward children, as measured on written instruments or in personal conferences. Five behavioral patterns were found which did seem to distinguish the successful interns. They were: (a) a behavioral demonstration of a belief in the youngster's potentialities, (b) an ability to organize a classroom situation, (c) a real enthusiasm for subject matter, (d) an ability to set appropriate standards, and (e) a willingness to listen. From these observations, it was concluded that successful interns act on principle and in terms of the immediate needs of the situation.

Adjustment to Teaching

In a large national sample of beginning teachers Mason (1961) reported that among male first-year teachers, the group with the highest degree of satisfaction did not have a bachelor's degree and were not certified, while the least satisfied teachers in the sample were certified and were taking graduate work.

The United States Office of Education (1964) conducted a study of beginning teachers as a follow-up of the Mason study. The USOE study reported that the first year in an occupation is a period of "reality testing", a time when the individual is discovering whether the occupation can provide the rewards and satisfactions he had anticipated.

The report further stated that the situation in which the beginning teacher found himself and his qualifications for teaching seemed to influence his attitude toward job satisfaction. The USOE study found that the majority of the beginning teachers did not expect to make teaching a life-long career.

Isaac (1963) observed in a three-year study of the problems of beginning primary teachers in Chicago that enlarged experience, though necessarily delayed, is the most helpful practice for assisting in the adjustment of the beginning teacher. The second-year teacher expressed concern less frequently than the beginner. The third-year teacher's mention of problems was markedly decreased, and the difficulties were different from those she had encountered during her prior two years in the classroom.

Bush (1964) pointed an accusing finger at personnel policies in a report of the problems of beginning teachers. He stated that the new teacher is often assigned the heaviest load, the most difficult classes in the worst schools, and in other ways is given the "traditional freshman hazing".

Vars (1965) suggested one of the immediate, practical measures to assist in the adjustment of the beginning teacher is the practice of assigning a decent, workable teaching load.

Measurement of Teaching Performance or Effectiveness

An enormous amount of research on the measurement of teacher effectiveness has been tapped as a potential resource for this study. Perhaps the most difficult and intransigent factor in all this research has been the criterion: what constitutes teacher effectiveness and how is it measured? Wherever a single criterion has been employed, whether it be ratings of superiors, fellow teachers, or pupils, observation of overt classroom behavior of teachers (see summary by Morsh and Wilder, 1954), measurements based on pupil learning (Mitzel and Gross, 1958), or personality characteristics of teachers (Ryans, 1960), the results have been generally unsatisfactory. It is probable that the criterion is so complex that no single measure is likely to be adequate.

As Ryans (1960) and Tyler (1954) have pointed out, the criterion of pupil gain as a measure of teaching effectiveness has some striking and potentially pernicious shortcomings. Such pupil gain cannot be treated without proper regard to the total social and psychological context within which the child functions including the ever-present danger of teaching for the test.

Furthermore, teacher characteristics are often considered independently apart from their dynamic interrelationships and varied teaching situations have been treated much as if they were alike. Such factors as sex, age, grade or subject level, have sometimes been ignored in studies of teacher characteristics, and such factors as educational viewpoint of the school, nature of the student body, and conditions in the community have been neglected in considering the teaching situation.

Each of these types of criteria (observations, ratings, pupil learnings, and teacher characteristics) is inadequate in some respects, and what at present seems to be lacking is a context of sound theory. As the Committee on the Criteria of Teaching Effectiveness of the American Educational Research Association has pointed out, most studies of this problem seek ad hoc solutions to immediate problems with relatively little regard to theoretical meanings or long-range productiveness. Hypotheses have sometimes been based on over-simplification of teacher personality and the situation with associated inadequate methodology and conclusions.

Ratings of various publics (principals, teachers, pupils) have frequently been somewhat unreliable, perhaps because of the differing role-expectancies of the teacher and role-images of these publics. Hertz (1959) employed principals' ratings as a criterion of effectiveness of beginning teachers and found that inconsistencies, lack of discrimination reflected in ratings, and the principal's own admissions rendered the criterion unreliable.

Gowan (1957) at the University of Southern California used individual case studies to make certain inferences with regard to the sociological climate which produced highly selected teachers.

Outstanding teachers were found to come from good homes. Their background contained such characteristics as responsibility, conformity, lack of blame protection, and cooperativeness which seem to stem from strong parental models. Their family background was close-knit and characterized by permissiveness and love.

This select group of teachers showed early and continued interest in teaching, usually accompanied by early teaching experience. Democratic attitudes were characteristic of the group and they enjoyed the actual process of personal interaction with the children.

Two conclusions were reached: (a) there was ample evidence that home backgrounds of the teachers were favorable, and (b) distinct personality and interest differences were noticeable.

Heil, Powell, and Feifer (1960) related pupil achievement to the interaction between teacher and pupil personalities. Three teacher and four pupil personality types were identified by special instruments. The "self-controlling" or well-integrated teachers were generally most effective, whereas the "fearful" or poorly integrated were ineffective, with all types except the "strivers." The third type of teacher (turbulent) was comparable to the defensively intellectual scientist who employs intellectualization as a defense mechanism. These teachers were effective with "conformers" and strivers" especially in mathematics and science but generally ineffective with "opposers" and "waverers."

Cogan (1958) studied the effect of teacher behavior on the amount of work performed by pupils by correlating pupils' reports about their teacher's behavior with their reports on how much school work they did.

A study dealing with pupil-teacher classroom interaction analysis was undertaken by Flanders (1960) who dealt with the influence of the teacher's verbal behavior in the classroom. Flanders developed a list of ten types of verbal behavior into which statements made in the classroom were categorized. Teacher statements were classified into seven categories and pupil responses into two. A tenth category took in types of verbal behavior that were unclassifiable from the standpoint of the initiator of the action. Over a period of six years, observations were made of over one hundred teachers from all grade levels in six different school systems. Conclusions from the research show that an estimated two-thirds of the time in an average classroom is spent in talking. Two-thirds of the talking is done by the teacher.

Smith and Meux (1960) attempted to establish a means of separating verbal teaching behavior into "units" that had significance for teaching and to analyze logically the units that evolved. Tape recordings were made of verbal behavior in seventeen high school classrooms. The verbal behavior as recorded on the tapes was analyzed into units of one speaker and two or more speakers. The investigators emphasized that when educators looked at actual instructional operations, they would find them different from what they might have thought them to be verbally.

Hughes (1959) set out to describe the teacher's verbal and nonverbal behavior, according to how that behavior was used for the pupils. Forty-one elementary teachers were observed on three occasions, each for a period of thirty minutes. On each occasion two trained observers recorded verbatim the teacher's behaviors in shorthand and later compared their observations. The records of verbal as well as nonverbal behaviors were analyzed in terms of teaching acts. These acts were then classified into seven major categories of teaching behavior. The data indicated that, of the seven types of teaching behaviors, "controlling functions" made up the teaching behavior most frequently used by the teachers to a far greater degree than any of the other teaching acts.

Turner (1960) conducted studies focused upon the assumption that teaching may be viewed as a series of problem-solving or coping behaviors. Utilizing this strategy, Turner and Fattu (1960) developed objective instruments to measure potentialities in teachers for performing coping tasks.

Bellack (1963) proposed "to study the teaching process through analysis of the linguistic behavior of teachers and students in the classroom." The aim was to describe patterns of linguistic behavior of teachers and pupils in classroom discourse and also to study linguistic variables of discourse in relation to pupil learning and attitude change.

Investigators noted that the basic type of verbal behavior in the classroom was that of the teacher's asking for information, pupils' answer to the teacher's query and the teacher's action following the pupils' reply.

Medley and Mitzel (1959) developed a measure of classroom behavior by combining and improving upon items from several earlier classroom observational techniques. The device, entitled the Observation Schedule and Record (OSCAR), provides measures of teacher behavior, pupil behavior, classroom grouping, educational materials employed in the classroom, subjects taught, and teacher verbal behavior. Twenty keys were derived from the measure, fourteen of which were reliable. A centroid factor analysis of the fourteen variables derived from the OSCAR produced three factors entitled Emotional Climate, Verbal Emphasis, and Social Structure. The Emotional Climate dimension has been described by Medley and Mitzel as referring to the amount of observable hostility in the classroom as opposed to warmth and friendliness, Verbal Emphasis as the degree to which verbal activities predominate, and Social Organization as the amount of social grouping and pupil autonomy.

Wallen and Wodkte (1963) investigated relationships between certain dimensions of teacher characteristics and measures of student behavior. Data were collected on sixty-five teachers and their students in grades one through five. The means of assessing these behaviors were sampling of verbal behavior, observe ratings, and Q sorts added to these data were data from the OSCAR.

Cyphert and Spaights (1964) made an analysis and projection of research in teacher education as that field has been traditionally defined. This study had as its purposes appraising the progress that has been made in teacher education; developing guidelines for future research; and conceiving new approaches to selected research problems and issues in teacher education. Major endeavor was to review and analyze the existing recent research in the field of teacher education as traditionally defined -- excludes research projects which focus on teacher behavior and teacher effectiveness.

Biddle and Ellena (1964) proposed a model for seven classes of variables involved in teacher effectiveness, together with three postulates stating cause and effect relationships among them. Five main sequence variables were proposed including formative experiences, teacher properties, teacher behaviors, immediate effects, and long-term consequences. Each of these variables is postulated to affect the one immediately behind it in the sequence. In addition, classroom situations and school and community contexts jointly constrain and interact with the linear effects of the five main sequence variables.

The appointment in 1955 of a Committee on Teacher Effectiveness by President Francis Cornell of the American Educational Research Association led to the publication in 1963 of the Handbook of Research on Teaching. (Gage, Editor, 1963) This handbook has provided a foundation for contemporary research in this area. Four major divisions include theoretical orientations, methodologies, major variables and areas, and the results of research on teaching various grade levels and subject matters. Chapter 3, "Paradigms for Research on Teaching," (Gage, 1963, pp. 94 - 141) describes numerous models, patterns, and schemata (described by the generic term "paradigm") for research on teaching. The present research may be seen as a logical extension of the criterion-of-effectiveness design for research extending from the Wisconsin studies spanning several decades by Barr and his colleagues (Barr *et al.*, 1961). These studies were the earliest and perhaps the most comprehensive to date in searching for adequate criteria of effectiveness. Domas and Tiedeman (1950) provided an annotated bibliography of more than 1,000 studies. Their studies distinguished between teachers "in training" and "in service," between criteria based on achievement by pupils as contrasted to judgments by teachers themselves and by various "others" such as pupils, administrators, etc. and performance on tests of various types, and between pupil achievement criteria, both subjective and objective.

The most appropriate paradigm for the research reported in this study is that of Ryans and his colleagues as reported in *Characteristics of Teachers*.

The Teacher Characteristics Study directed by Ryans (1960) deals with relationships between estimates of teacher behavior patterns observed in the classroom, inventory of estimated teacher characteristics, background and environmental variables, and observed pupil behavior. The first stage of Ryans' investigation consisted of the development of a procedure for obtaining observers' ratings of teacher and pupil classroom behavior, and the factor analysis of these measures. The factor analysis of observer ratings of teacher and pupil classroom behavior produced five factors at the elementary level and six factors at the secondary school level.

This chapter has summarized major research efforts related to; (1) studies of beginning teachers and; (2) measurement of teacher performance or effectiveness.

CHAPTER III

Procedures of the Study

The Teacher Education Research Project (TERP) was a two-part, three-year comparative study of beginning teachers in Georgia. Part I, the longitudinal study, identified the 1964-65 beginning classroom teachers in Georgia and determined certain characteristics of these teachers. Contacts were made with these teachers during the two years after their first year of teaching to identify possible factors that led to their leaving or staying in teaching.

Part II, the depth study, was concerned with comparing the effectiveness of provisionally and professionally certified teachers in Georgia. A sample of 229 beginning teachers in 1965-66 and 241 beginning teachers in 1966-67 was selected for this phase of the study.

It is the purpose of this chapter to describe the subjects, the instruments used, and the procedures used in gathering and analyzing data in Parts I and II of the study.

Selection of Subjects and Plans for Gathering Data

Part I, The Longitudinal Study

The population of beginning teachers in Georgia is not a static group. Teachers enter and leave the profession every school day. This statement does not imply that most teachers teach for only a short time, but indicates that descriptions of a group vary somewhat from time to time. On September 1, 1964, forms for the purpose of securing the names and addresses of the beginning teachers in Georgia were mailed to the 196 system superintendents. One hundred ninety-three of the forms were completed and returned. The State Department of Education furnished the names and addresses of the beginning teachers in the other three systems. These reports yielded a total of 2,666 beginning teachers in September, 1964. Henceforth, these teachers will be referred to as the September, 1964 population. Data obtained from the State Department of Education four months later reported 3,540 teachers as beginning teachers in Georgia for 1964-65. Henceforth, these teachers will be referred to as the January, 1965 population.

On November 1, 1964, a 109-item questionnaire (GBTQ), along with a self-addressed, stamped envelope, was mailed to the 2,666 beginning teachers in the state. There were 1,037 usable instruments returned by teachers from all sections of the state and from every type of school system. Of this number, 833 were professionally certified teachers and 204 were provisionally certified. These teachers are referred to as the sample population for the longitudinal study for the three years of the first phase of the study.

Part II. The Depth Study

Part II, the depth study, was designed to study samples of provisionally certified and professionally certified beginning teachers in terms of performance and teaching effectiveness. The sample for Part II consisted of five groups of randomly selected provisionally and professionally certified teachers in the areas of science, social science, English, and mathematics at the secondary level and teachers of elementary grades one through six.

In September, 1965, a list of all beginning teachers in Georgia was compiled from information received from system superintendents and the State Department of Education. The entire beginning teacher population (September) in Georgia consisted of 4,357 teachers in the 1965-66 school year. Data secured from the State Department of Education four months later indicated the January, 1966 population of beginning teachers as 4,289.

In the September population there were 2,986 professionally certified teachers, 704 provisionally certified and 667 teachers reported having no certificate issued to them at that time. This last group was omitted in the study giving a total population of 3,690 beginning teachers in 1965-66 as the September population. Of the 3,690 teachers, 2,443 professionally certified teachers and 432 provisionally certified were teaching in the areas of science, mathematics, English, social science, and elementary grades one through six.

The sample for Part II, 1965-66, was selected from these two groups by stratified sampling of approximately equal numbers in each of the five fields. Letters were sent to 194 professionally certified beginning teachers inviting them to participate in the project and 116 teachers accepted. Invitations were extended to 196 provisionally certified beginning teachers and 113 accepted. These 229 teachers constituted the sample for Part II of the study for 1965-66.

In September, 1966, a list of beginning teachers in Georgia was compiled from information received from system superintendents and the State Department of Education. The September, 1966 population of beginning teachers in Georgia was 3,278. The January, 1967 population of beginning teachers in Georgia derived from State Department of Education records was 4,658.

The sample for Part II, 1966-67, was selected from the 2,717 professionally certified teachers and 659 provisionally certified teachers by stratified sampling of approximately equal numbers in each of the five fields. Letters of invitation were sent to 407 professionally certified beginning teachers and 134 agreed to participate. Invitations were extended to 284 provisionally certified beginning teachers and 107 accepted. These 241 teachers constituted the sample for Part II of the study for 1966-67.

Plans for Gathering Data

At the time letters were sent to teachers requesting their cooperation, a companion letter providing information and requesting cooperation was sent to each principal and superintendent of the teacher involved. A teacher's participation in the project included a commitment to: (1) responding to five instruments, (2) permitting observers to visit in his classroom three times during the year, and (3) agreeing for his pupils to respond to an instrument.

The instruments were included in a packet of materials delivered by the observers when the first visits were made in November and December, in 1966 and 1967. The teachers were asked to respond to instruments according to instructions and mail the completed instruments and answer sheets to the project headquarters. Stamped, addressed envelopes were provided for this purpose. Upon the receipt of the completed instruments a small token of appreciation, in the form of a check for ten dollars, was mailed to each teacher.

Trained observers, using the *COR*, made classroom observations of each teacher in the sample in 1965-66 and 1966-67. The observations were spaced so that each teacher was visited by two observers at the same time during the fall, two observers at the same time during the winter, and one observer during the spring. On the third occasion the observer administered the *POSR* to one class randomly selected for this purpose. Figure 1 shows the pattern of observations and the administration of the *POSR*. Each teacher-participant was assigned to a particular observer for purposes of continuity and identification. The additional observers at Occasions I and II permitted the obtaining of inter-observer, same-occasion reliability coefficients for each subscale of the COR, while the same observer for three occasions enabled the investigators to calculate inter-occasion, same observer reliability coefficients.

Occasion I (Fall)	Occasion II (Winter)	Occasion III (Spring)
Observer A (COR)	Observer A (COR)	Observer A (COR)
Observer B (COR)	Observer C (COR)	POSR (to class)

Figure 1. The pattern of *COR* observations and *POSR* administration for the three occasions.

Instruments Used

In Part I, the longitudinal study, the primary purpose was to assess the relevant characteristics of beginning Georgia teachers as a basis for the study in depth of samples of teachers. One source of important information was the teachers themselves. A provisional set of questions was formulated as a part of the contract proposal submitted in February 1964. This set of questions had been prepared by the senior investigator from a much larger set of questions compiled in a comprehensive survey of related literature. In the early stages of the study a tentative form of the instrument was used in a pilot study. Students in the senior investigator's research methods classes during the summer of 1964 who had taught only one year were asked to complete and return the forms. They were asked to respond in the usual manner as a typical respondent and in addition, to make any comments or suggestions relating to the questionnaire as a whole or to any specific item. Following completion of the forms, individual interviews were held to ascertain any favorable or unfavorable reactions and to determine any unnecessary duplication or any significant omission. All students completed the form and the interview. Numerous suggestions were made for possible classification of items and improvements.

After the pilot survey was completed, further revision was carried on over a period of several weeks during which time consultations were held with specialists in survey design. The pilot survey, interviews, and consultations were conducted by Lightsey (1965), one of the project research assistants during the 1964-65 academic year. The final phases of revision were made in conference with the entire staff of the Georgia Study of Beginning Teachers. This final form was then printed into a four-page folder as the Georgia Study of Beginning Teachers Questionnaire (GBTQ). (See Appendix.) The GBTQ has five major sections: a section on selected organismic and personal characteristics (facts which could be verified from independent sources), and four sections requesting reactions or "perceptions" of teachers concerning factors related to their choice of vacation, teacher preparation, teaching experience, and future plans for teaching. Fifteen items comprised the section on personal characteristics, with the number of items in the other four sections as follows: Choice of vocation, 5; teacher preparation program, 38; beginning teaching experience, 47; future career plans, 4. One of the items of the teacher preparation program was an open-end items calling for suggestions for improving the program. In addition to the 109 items listed above, three open-end items called for an expression of the "greatest satisfaction" in teaching, "greatest dissatisfaction," and "greatest surprise."

The validity of the *GBTQ* is based essentially on the "face" validity or content validity of the items. Some of the items in the first section requesting information concerning sex, certification status, field or level of preparation, and field or level of assignment, college of preparation, and system of employment could be and frequently were verified by referring to the lists submitted by the system superintendents (see below), and the State Department of Education files.

Three instruments were devised for use in the follow-up phases of Part I. Booth (1966) devised two of the instruments, the first of which was a revision of the original form devised in September 1964 to solicit information from system superintendents concerning the September Population. This instrument, referred to as the "Re-Survey of School Systems" was devised as follows: Part I was a duplication of columns one, two and four (requesting name of teacher, name of school, and type of certificate held, respectively). Column three, grade level or subject, was deleted. Part I was completed prior to mailing the form to the school system. Part II, Present Employment of the 1964-65 Beginning Teachers, was added to the original instrument. It consisted of ten columns, most of which, if applicable, required only a simple check in response. Two items required more than a check, Column A of Part II required a check in one of two subcolumns if the teacher was still teaching in the same system. Column B required a check if the teacher was teaching in a school in another system in Georgia or in another state. Column C required a check if the teacher had left the teaching profession. A code consisting of eight reasons why the teacher might have left the former (1964-65) teaching position was prepared for use in Column D, Reason for Leaving. The code is as follows:

1. Married
2. Husband transferred
3. Family responsibilities
4. Left teaching for other job
5. Returned to college
6. Military service
7. Not reappointed
8. Other (please specify)

In Column II F, Present Address (if left system), the respondent (the superintendent or his designated representative) was requested to give the present mailing address of the 1964-65 beginning teacher if he was no longer in the system which employed him in the fall of 1964.

The instrument (Re-Survey) was prepared and revised upon advice and consultation with members of the staff of the Study of Beginning Teachers.

The second instrument devised by Booth (1966) to identify factors associated with early withdrawal (i.e., after one year or less) from teaching was a two-part schedule, entitled General Information Questionnaire and Teaching Appraisal Schedule (TAS).

Part A, the General Information Questionnaire, consists of one page of check items combined with a minimum of completion items. The design was to permit freedom from unnecessary effort for the respondent and to provide needed biographical data. Part I requests basically the same information as the GBTQ first (factual) section, but was modified to meet the specific needs of the follow-up study. Two added items request the educational level of the father and the mother. Part II of the General Information Questionnaire requests information concerning whether (or not) the teacher received the expected teacher assignment, is (or was) now teaching, status of salary with respect to the beginning teacher salary, plans to teach again, if teaching, where (i.e., which state), why the respondent left teaching in Georgia, what profession was entered, and what was the reason for leaving. (See Appendix).

Part B, the TAS was originally devised after a careful study of the sociology of work, the sociology of education, the factors which were suggested by research as important in job satisfaction (or dissatisfaction), and types of attitudinal indicators which could be useful. From review of literature, 11 attitudinal factors emerged as being important in satisfaction/dissatisfaction in professional groups such as teachers. These 11 attitudinal areas were:

(The attitudes of the teacher toward)

1. teaching as a career for persons he loves.
2. himself and his teaching experiences.
3. students in general.
4. his working with students.
5. his own preparation for the teaching position which he held.
6. the parents of his students.
7. the community in which he taught and the community's acceptance of him as a part of the total community life.
8. the school system in which he was employed.
9. regarding the adequacy of the salary which he received as a beginning teacher.
10. the other members of the instructional staff in the school where he was employed.
11. the principal of the school in which he was employed.

After investigation of potentially useful models for constructing the TAS, the Likert method summated ratings (Remmers, 1954, pp. 94-95) was selected as most appropriate. Sixty-five statements related to the 11 areas of concern were formulated. After careful editing to eliminate ambiguous, irrelevant, and faulty statements, the items were arranged as a questionnaire with each item being given multiple response categories of "strongly agree, agree, uncertain, disagree, strongly disagree." Most statements were given in positive or favorable form; a few items, however, were reversed and the "disagree" response indicated a "favorable" reaction.

The provisional instrument was then administered to a pilot group of 81 persons who had taught (including student teaching) or who were active in the teaching profession. The groups who responded to the trial instrument were:

(a) Seniors at the University of Georgia who had immediately prior (to the administration) completed student teaching: 27 students, all secondary education majors, including 13 home economics, 6 social studies, and 8 English and modern foreign language teachers.

(b) Members of Alpha Eta Chapter of Delta Kappa Gamma, who were women elected to membership in the society because of their dedication to educational work: 36 DKG members, 20 of whom were actively teaching, 8 who were retired, 2 who were administrators, 4 who had left for other positions or for family responsibilities, and 2 who were librarians who had not had classroom teaching experience.

(c) Persons who had taught but who had left teaching for other jobs: 18 former teachers, 7 from Bibb County (Georgia) and 11 from Clarke County (Georgia). All levels were represented (primary, elementary, junior high, and senior high); 5 men and 13 women.

The questionnaires were then scored for each subject by assigning arbitrary weights of 1, 2, 3, 4, and 5 to the five response categories of each item so that in each item the favorable attitude received the highest weighted value. Frequency counts of the responses to each of the 65 items were made and the results were examined for their discriminatory power. The weighted values of each subject's responses were totaled, and the totaled scores were tallied in frequency counts in order to determine the discriminatory power of the summation of the scores.

The simplest index for analyzing the discriminatory power of the instrument described by Remmers (1954, p. 95) was used. This analysis consisted of taking the top 10 per cent and bottom 10 per cent on the distribution of total scores and calculating the mean of the responses to each item for each of these groups separately. Those items not differing by two score intervals in the mean response between high and low extreme scores were considered as not having any discriminatory power. Three items in the original instrument fell into this category. One of the items was deleted from the instrument, and the other two were included although not processed in the data for the present study. The item deleted was "Parents became angry if their child was punished." The items included, although not shown to be discriminatory, both related to the salary teachers receive. Some other items were determined to need changing for clarification.

The total sum of the part scores was also analysed by taking the mean of the top 10 per cent and the mean of the bottom 10 per cent. The discriminatory power was determined to be adequate for the purposes of this investigation. The Likert-type scale (Summers, 1964, p. 98) as used is a cumulative type measurement with the higher the cumulative score the more favorable the subject's reactions and, therefore, the more favorable the subject's attitudes toward teaching as a career as measured by the instrument.

Examination of the responses to the original instrument indicated that those who had left teaching for other positions or who did not plan to make teaching a career scored the lower scores, thus tentatively supporting the content validity of the TAS.

Internal validity was established by checking the degree to which each individual item contributed to the total score by the process described above. The use of this process assumes that the total instrument has some degree of content validity and indicates the degree to which each individual item contributed to that validity.

Following the analysis of the results of the pilot study, TAS was revised and expanded to include items related to the teacher's problems in working with children, in meeting frustrations from pressures related to teaching, and to the teacher's faith in other people. The six items related to faith in people are revisions of five items from the Scale of Faith-in-Human-Nature (Goldsen, 1960, p. 221). The Scale of Faith-in-Human-Nature as originally used was prepared according to the Guttman Technique. The modification for the TAS consisted of adaptation to the "strongly agree, agree, etc." response mode of the remaining items of the TAS.

In addition to the six-item Faith-in-Human-Nature subscale, two other items were created by restating two items which had two verbs, making four items to replace the two items thus avoiding possible ambiguity.

As finally revised, the TAS consists of 73 statements. As printed into a four-page folder for handling and mailing, the 11 areas included the following items. Reference may be made to the TAS in the Appendix for the precise statements.

Area I.	Teaching as a Career for Loved Ones. Items 1, 2, and 3.
Area II.	Faith in People. Items 5, 19, 27, 30, 42, and 51.
Area III.	Self and Teaching. Items 4, 7, 8, 9, 10, 11, 47, 48, and 60.
Area IV.	Working with Students. Items 12, 13, 14, 15, 16, 17, 26, 49, and 50.
Area V.	Views of Students. Items 20, 21, 11, 23, 24, and 25.
Area VI.	Attitudes toward Own Preparation. Items 18, 35, 36, 37, 38, 39, 40, and 41.
Area VII.	Attitudes toward Parents. Items 28, 29, 31, 32, 33, and 34.
Area VIII.	Community and Community Acceptance. Items 6, 43, 44, 45, and 46.
Area IX.	Attitudes toward School System. Items 52, 53, 54, 55, 56, and 57.
Area X.	Other Instructional Staff Members. Items 58, 59, and 72.
Area XI.	The Principal. Items 61, 62, 65, 66, 67, 68, 69, 70, and 71.

Three additional items are not included in the list above. Two items (#63, "The salary for teachers is adequate for the training they have," and #64, "The salary for teachers is adequate to give them a high standard of living") were omitted from the cumulative score because they did not have any discriminatory power in the pilot study. Item 73, "I would like to teach in Georgia again," was omitted from the cumulative score since it did not seem to reflect the teacher's attitudes toward any of the 11 areas considered. It is used to separate groups as an independent variable for considering the 11 dependent areas.

In addition to the 73 check items, the TAS contains two open-response questions. They were as follows:

> "Were there any problems you encountered as a teacher that are not covered in the 73 statements? If so, please list them below."
>
> "What suggestions do you have for making teaching in Georgia a more attractive career?"

In order to establish objectively the most favorable attitude toward teaching as a career as measured by the *TAS*, the researcher requested the help of 20 persons on the staff of the University of Georgia in the College of Education. They were asked to place value judgments on the 73 items by checking the end of the scale, either "strongly agree" or "strongly disagree," that they believed theoretically would represent the most favorable attitude toward teaching as a career. In only one instance did less than 15 of the 20 persons involved check the same end of the scale. The one item in question was Item 26, "Students must be kept at a 'proper' distance if the teacher is to maintain discipline." The number of responses used to determine the "strongly disagree" response as being the most favorable attitude toward teaching as a career was 12.

"Eight items were included in the group for which "strongly disagree" received the weighted value of five instead of one. These "reverse" items which had the same numbers as on the revised *TAS* as shown in the Appendix were items 19, 23, 26, 28, 30, 42, 63, and 64.

Construct validity of the *TAS* has been established through the use of factor analysis. A first-order factor analysis of the 73 items employing the BMD03M (Dixon, 1965) revealed 21 factors which accounted for 64 per cent of the variance. Utilizing a strategy described by Comrey (1962) of combining factored homogeneous items, a second-order factor analysis was completed. From the 21 first-order factors, seven factors were obtained by the second-order factor analysis. These 21 first-order and seven second-order factors are discussed in greater detail in Chapter 4.

Trull (1967) revised Booth's *TAS* to identify selected characteristics and to obtain perceptions of teachers who remained in teaching for the entire three-year period, 1964 - 67. This questionnaire was also entitled *General Information Questionnaire and Teaching Appraisal Schedule*. A copy may be found in the Appendix. The procedures employed in developing the Trull *TAS* were generally similar to those described above for developing the Booth *TAS*. Some minor changes were made to revise the tenses so as to indicate reaction to present teaching situations rather than to past teaching situations. A similar procedure was followed to establish construct validity (first and second-order factor analyses) and results are presented in Chapter 4, along with a comparison with the reactions of the withdrawing teachers.

Instruments Used

In Part II, the depth study, the primary purpose was to compare first-year teachers with professional certificates with first-year teachers with provisional certificates with respect to:

(a) Role expectancies
(b) Self concepts
(c) Personal and professional characteristics
(d) Attitudes toward education and educational issues
(e) Performance as perceived by pupils
(f) Overt classroom behavior of teachers as perceived by trained observers.

To test the basic hypothesis of the study five instruments were used to secure responses from the beginning teachers; one instrument was used to secure responses from the pupils of beginning teachers; and one instrument was used by the observers in making classroom-observations. A description of these instruments follows.

Instruments to which beginning teachers in the samples responded were: (1) Teacher Practices Questionnaire (TPQ), (2) Index of Adjustment and Values (IAV), (3) The Teacher Characteristics Schedule (TCS), (4) TERP Attitudes Scale, and (5) Georgia Study of Beginning Teachers Questionnaire (GBTQ).

The TPQ was developed by Sorenson, Husek, and Yu (1963) to identify role expectations of teachers, specifically with respect to interpersonal relations. The TPQ consists of 30 problem situations typical of those which teachers encounter in their daily routine. Each problem situation is a brief description of a student and his behavior. For each problem four alternative courses of action are presented representing different role dimensions. Teachers are asked to rate each alternate solution on a five-point scale as to its degree of appropriateness: (1) very appropriate, (2) fairly appropriate, (3) acceptable, (4) fairly inappropriate, and (5) very inappropriate. Their responses measure the degree to which the subjects tend to assume the following roles: (1) Advice-Information Giver, (2) Counselor, (3) Disciplinarian, (4) Motivator, and (5) Referrer.

In the development of the instrument six teacher roles were postulated with Advisor and Information-Giver as separate scales. Two studies were conducted for the purpose of refining the questionnaire. Results from factor analysis using a six-factor rotation showed that four of the factors could be clearly identified, while the divisions termed Advisor and Information-Giver appeared to merge. Items for the two scales were incorporated into a single scale termed Advice-Information Giver.

Reliabilities of (1) .92, (2) .72, (3) .91, (4) .81, and (5) .89 were estimated by the split-half method using the Spearman-Brown prophecy formula. The reliabilities are to be interpreted with caution and treated as upper bounds since they are computed for data which were used in part to select the scales. Intercorrelations of the scales, ranging from .16 to .52, indicate that the scales are moderately independent.

The IAV was developed by Bills, Vance, and McLean (1951) to measure the values of a person, his acceptance of self, and the discrepancy which exists between his concept of self and his concept of his ideal self. To develop the IAV a sample of 124 words which appeared to present clear examples of self-concept definitions was taken from Allport's list of 17,953 traits (Allport, 1936). By means of item analysis of the results of 44 tests, unreliable items were eliminated and 49 words constitute the traits appearing on the IAV.

The 49 traits are arranged in a vertical list with three blank columns on the right. Subjects are asked to use each of the words to complete the sentence "I am a (an) ______ person," and to indicate on a five-point scale how much of the time this statement is like them. A rating of number one indicates "seldom"; number two, "occasionally"; number three, "about half the time"; number four, "a good deal of the time"; and number five, "most of the time". This rating is placed in Column I and is intended to measure the concept of self.

In Column II subjects are asked to enter a rating which indicates how they feel about themselves as described in Column I. The ratings, using numbers one through five, indicate in order: "I very much dislike being as I am in this respect"; "I dislike being as I am in this respect"; "I neither dislike nor like being as I am in this respect"; "I like being as I am in this respect"; and "I very much like being as I am in this respect". Column II measures acceptance of self.

To measure the concept of ideal self, subjects are then instructed to use the same word to complete the sentence "I would like to be a (an) _______ person" and to indicate in Column III how much of the time they would like this trait to be characteristic of them. The same rating numbers are used as in Column I.

The constructors of the *IAV* have presented data which indicate that the *IAV* is a reliable and valid instrument. Corrected split-half reliability coefficients of .91 and .88 were obtained for a group of 237 students. Test-retest reliability coefficients of .83 and .87 were found over a period of six weeks for a group of 175 students. The data from three studies Omwake, Fink, and Cowen (Bills, N. D.) indicate the *IAV* is valid, and further validation studies are in progress.

The *TCS* was developed as a part of the Teacher Characteristics Study directed by Ryans. This study was an eight-year research project conducted during the 1950's and is considered the single most extensive study of teachers to date (Gage, 1963). The major objectives were: (1) the identification and analysis of some patterns of classroom behavior, attitudes, viewpoints, and intellectual and emotional qualities which may characterize teachers; (2) the development of paper and pencil instruments suitable for the estimation of certain patterns of classroom behavior and personal qualities of teachers; (3) the comparison of various groups of teachers.

To gather data, teacher-observation was employed in one phase of the study, using specially trained observers and the *COR*. The *COR* is an assessment form listing four dimensions of pupil classroom behavior and

18 dimensions of teacher behavior. On this record, observers assigned each teacher a value from one to seven on each dimension of behavior. Three patterns of teacher behavior stood out in separate factor analyses of the observational data: (1) Pattern X_o - warm, understanding, friendly versus aloof, egocentric, restricted teacher behavior; (2) Pattern Y_o - responsible, businesslike, systematic versus evading, unplanned, slipshod teacher behavior; (3) Pattern Z_o - stimulating, imaginative, surgent versus dull, routine teacher behavior. Paper and pencil instruments were used to investigate certain dimensions of teacher attitudes, verbal understandings, educational viewpoints, and emotional stability.

Later in the study the use of correlates to predict teacher behavior and characteristics was investigated extensively. Several different instruments were developed consisting of stimulus materials designed to evoke responses which might be correlated with various teacher characteristics. These materials were selected and compiled into a single instrument, the TCS. Scoring keys were derived for a large number of teacher groups. The Schedule in its final form was a self-report inventory consisting of 300 multiple-choice and check list items relating to personal preferences, self-judgments, activities frequently engaged in, biographical data, and the like. From the responses, estimates could be obtained of each of the following 10 behaviors and characteristics:

(1) X_{co} - warm, understanding versus aloof, restricted behavior
(2) Y_{co} - responsible, systematic versus evading, unplanned behavior
(3) Z_{co} - stimulating, imaginative versus dull, routine behavior
(4) R_{co} - favorable versus unfavorable opinions of pupils
(5) R_{1co} - favorable versus unfavorable opinions of democratic classroom procedures
(6) Q_{co} - favorable versus unfavorable opinions of administrative and other school personnel
(7) B_{co} - learning-centered ("traditional") versus child-centered ("permissive") educational viewpoints
(8) I_{co} - superior versus poor verbal understanding
(9) S_{co} - emotional stability versus instability
(10) V_{co} - validity of schedule responses

Reliability coefficients generally fall between .70 and .80. Concurrent validity coefficients were typically between .20 and .50; predictive validity coefficients were positive but low; cross validation coefficients generally fall between .40 and .60.

The *TCS*, *Form 99*, consisting of 175 items which yield estimates of the above 10 behaviors and characteristics, was used in the Teacher Education Research Project. Form 99 is suitable for all teachers as opposed to other forms for selected subclasses of teachers.

The *TERP Attitude Scale* (*Kerlinger Educational Scale VII*) is the most recent in a series of scales developed by Kerlinger (1965) to measure attitudes toward education and educational issues. Educational Scales I and II were made up of 20 items previously determined by Q sort and a Likert-type scale to discriminate highly between permissive-progressive and restrictive-traditional attitudes toward education. Educational Scale VI, consisting of 46 items, was developed in an effort to gain higher reliability. This scale resulted in reliability coefficients of .80 for both factors while maintaining high validity.

Educational Scale VII, a 30-item Likert-type scale intended to produce high reliability with fewer choices, measures the extent to which a teacher holds a "traditional" or "progressive" attitude toward education. For each of the 30 statements, the subject is asked to indicate the extent to which he agrees or disagrees by choosing among: very strongly agree; strongly agree; agree; disagree; strongly disagree; or very strongly disagree. Kerlinger (1965) expects reliability coefficients of ".80 or a little less" and very high validity ratings.

The *GBTQ* provided data of such significance for Part I of the study that it seemed valid to use it in Part II of the study.

The instrument to which pupils of beginning teachers in the sample responded was the *POSR*. As a part of the assessment program of the Mental Health in Teacher Education Project at the University of Texas (Grant No. 2 M6635 from the Training Branch of the National Institute of Mental Health), the *POSR* and a number of other observation methods were developed in attempting to gather comprehensive descriptions of student teacher behavior.

The POSR is a 38-item questionnaire which attempts to measure pupils' reactions, as well as behavioral characteristics of teachers. Pupils are asked to rate their teacher on each statement by use of a four-point scale of agreement. All statements are phrased positively.

The factor structure of the 38 POSR items was determined by an analysis of the pupil ratings of 554 student teachers. The five identified factors were described by Veldman and Peck (1963) as follows:

(a) Friendly, cheerful, admired
(b) Knowledgeable, poised
(c) Interesting, preferred
(d) Strict control
(e) Democratic procedure

To determine the factor score (found by summing the score points for items making up a factor) reliability, the 50 teachers with the largest classes were selected and item means and factor scores were computed separately for each randomly divided half of each teacher's class. These factor scores were then correlated to yield reliability estimates for the factor scores. The reliability coefficients (termed "split-class" by Veldman and Peck) for each of the factor scores were these: Factor I, .92; Factor II, .72; Factor III, .91; Factor IV, .81; and Factor V, .89.

Brown (1965) made an additional reliability check on the POSR. Arrangements were made with two science teachers for a test-retest measure. The POSR was given and repeated two weeks later on the same groups -- pupils in two chemistry classes and one biology class. The teachers were excused from their classrooms during both administrations of the POSR in order that pupils would be under no pressure to respond in any particular way to the questionnaire. Papers were numbered and a prearranged coding system was used to match papers from the two administrations of the questionnaire. The reliability coefficients obtained with the test-retest method (N=54) were: Factor I, .84; Factor II, .80; Factor III, .79; Factor IV, .71; Factor V, .66; and the whole POSR, .86.

The reliabilities appeared high enough to warrant the use of the POSR in the study.

The observers used the COR and accompanying Glossary, as developed by Ryans (1960) and as extended by Beery (1960), in assessing classroom behaviors of teachers and pupils. Ryans' COR and Glossary listed four dimensions of pupil classroom behavior and 18 dimensions of teacher behavior. Beery added six dimensions of teacher behavior to the Ryans' list. These additional items were expected to be specifically related to the outcomes of professional education courses. The COR used in this study (TERP) contains twenty-eight items. This COR identifies four patterns of teacher classroom behavior from the observational data: (1) Pattern X_o - warm, understanding, friendly versus aloof, egocentric, restricted teacher behavior; (2) Pattern Y_o - responsible, businesslike, systematic versus evading, unplanned, slipshod teacher behavior; (3) Pattern Z_o - stimulating, imaginative, surgent versus dull, routine teacher behavior; (4) Pattern M_o - effective versus ineffective use of media of instruction. (See Appendix.)

Ryans (1960) and his associates spent more than a year and a half in developing the COR and Glossary and the observation procedures to be employed in the Teacher Characteristics Study. Ryans' reliability studies dealt with the use of the COR and Glossary with trained observers (Ryans, 1964 in Biddle and Ellena). Reliability estimates were made of the assessments of the several dimensions of observed teacher behavior based on correlations between the assessments by a first and second observer of the same teachers. These, generally, were between .50 and .60; for elementary teachers the reliability coefficients for the different specific dimensions of behavior clustered around .55, for secondary school teachers, around .60. Reliabilities of the indexes (scores) for the patterns of teacher behavior (based on correlations between indexes yielded by assessments of different observers who independently assessed the same teachers) ranged from .70 to .80. To further assure reliability, a minimum of two independent sets of assessments was obtained for each teacher studied. The separate ratings subsequently were weighted equally and combined to form composite assessments for each teacher on each of the bipolar dimensions considered.

In respect to classroom observation methodology, Ryans noted that the reliability and validity of assessments made from direct observations generally were enhanced by: (1) attention to a limited number of relevant behavior dimensions for observation and assessment; (2) the provision of specific and unequivocal operational definitions of the characteristics to be assessed; (3) insuring that the observer was well acquainted with the behaviors to be assessed and with situations in which the behaviors frequently are manifest; (4) focusing of observer attention on the specified behaviors or characteristics to be assessed and carefully avoiding the influence of general impressions, unusual or dramatic behaviors, or inferences about what behaviors "might" occur in unobserved situations; (5) the immediate assessment of behavior during, or shortly following, observation; (6) the independent assessment of each specified behavior; (7) recognition and suppression by the observer of personal biases relative to individuals or behaviors; (8) care on the part of the observer to avoid such rating biases as the central tendency error, the leniency error, and so on; and (9) the replication of observations and assessments by independent, though similarly trained, observers.

The careful research and testing of the COR by Ryans indicated that the instrument was valid for use in this study. The instrument was used in the TERP Study in accordance with the specifications listed above.

Selection and Training of Observers

Part II of the study involved obtaining data on the beginning teachers by direct observation and assessment of teacher behavior by trained observers. Ryans' COR and accompanying Glossary were used as instruments in the observation and assessment of teacher behavior. The Glossary, designed for use with the COR, describes behaviorally and operationally specific teacher behaviors exemplifying the dimensions included in the COR.

Selection of Observers

In preparing for the observation and assessment of teacher behavior, careful attention was given to the selection and training of observers. It was recognized from the beginning of the study that much of the validity of the study would depend on the competence of those who would make the judgments based on classroom observations. In the selection of the observers, consideration was given to those persons who by their educational preparation, experience and position would be presumed to be able to make the judgments involved. Willingness to participate in special training sessions prior to and during observation period was also considered in the selection of observers.

Two groups of observers were employed in the study. Research assistants, employed for one-half time by the University of Georgia, comprised one group. The second group of observers consisted of selected curriculum directors recruited from certain geographical areas of the state and employed on a contract basis with the consent of the system superintendent. All observers were persons with previous teaching experience and were pursuing further study at the sixth year or doctoral level.

Training of Observers

From the beginning of the study it was assumed that effective use of the COR for observation and assessment would require thorough orientation and training of observers. In January 1965, a two-day conference for the project staff and observers who had been selected at that time was held. The purpose of the conference was to develop more specific plans for Part II of the study. Dr. David G. Ryans, director of The Teacher Characteristics Study, served as consultant for the two-day conference.

Following the conference, plans were made for a three-week institute to be held during the summer, 1965. In preparation for the institute, a manual for understanding and improving teachers' classroom behavior was prepared. The manual included (1) a brief symbolic statement of the variables with Part II of the study and (2) a description of the COR and

Glossary. In addition to the manual, testing materials for beginning teachers were prepared. Slides and tapes were purchased for use in the institute and books were acquired for use by the group for the review of related literature.

Institute for Observers, 1965

From July 26 to August 19, 1965, an institute was held for research assistants and selected curriculum directors who were to serve as observers in the first year of the depth study. The purposes of the institute were to: (1) help the observers to develop insights and skills in scientific observations with special attention to the study and use of Ryans COR; (2) develop definite and specific procedures and schedules for the year's research; (3) assist the participants in the clarification of their roles and; (4) develop needed competencies in the implementation of the study. The institute sessions were held five days a week beginning at 8 a.m. and ending at 3 p.m. The institute day was divided into several blocks of time and provided an opportunity for each student to participate in a variety of activities. The activities included: (1) reviewing the purposes and design of the study; (2) clarifying the roles and responsibilities of research assistants, special observers and staff; (3) responding to, scoring and discussing instruments to be used with beginning teachers; (4) reviewing and discussing professional literature on teaching, criteria of good teaching, role of the teacher and the meaning of teacher effectiveness; (5) reporting on recent research on classroom behaviors of teachers; (6) studying and discussing the operational definition of classroom behaviors identified by Ryans and; (7) studying and using the COR and Glossary as a guide for observing and recording classroom behaviors of teachers.

A major part of the institute was devoted to the development of skill and competency in observing and assessing teacher behavior. One aspect of the training involved study and discussion of the operational definitions of the behaviors under consideration and of problems involved in direct observation and assessment. The second aspect of training consisted of practice in observing, assessing, comparing and discussing. Since "live" classroom observations were not easily available during the period of the institute, teachers were observed by means of films and filmstrips. The use of videotapes and kinescopes was explored but could not be secured. Role-playing situations also provided opportunities for teacher observation.

In the training process, the observer noted the specific behaviors of a teacher in relation to those behaviors listed in the Glossary. Observations were made of the same teacher simultaneously but each observer made an independent assessment of the teacher's behavior on the seven-point scale in the COR. Comparisons and discussions of various aspects of the observing and assessment processes followed each observation. Special attention was given to discrepancies in assessments made by different observers. During the institute this procedure was repeated until approximate agreement among the observers was obtained. Practice in observing was directed toward helping each observer to improve his ability to perceive and to record perceptions accurately and consistently.

Other activities of the institute were related to the development of specific procedures for the implementation of plans of the first year of the depth study. Letters to superintendents, principals and teachers were developed. The POSR was adapted for use with primary children. Materials for use with teachers were collected and organized in packets for distribution. A tentative schedule was developed for visiting and observing the beginning teachers who would participate in the study. The three project staff members, ten research assistants and twelve curriculum directors participated in the 1965 institute.

Additional Observer Training

In October, prior to the first observation of beginning teachers, the observers visited classrooms in a nearby school and recorded their observations on the COR. Comparisons and discussions of their observations were made and agreement on observational procedures were reviewed before making the first visits.

In January 1966, a conference for observers and project staff was held. The purpose of the conference was to consider problems encountered during the first visits and to check on the reliability of observations. Graphic charts were used to present comparisons of inter-observer and intra-observer judgments on the COR. Specific tasks and responsibilities for the remainder of the year were reviewed.

Observer Training for 1966-67

The purpose and general procedure for observer training during 1966-67 followed the design of the previous year including a summer institute and conferences throughout the year.

Procedures for Analyzing Data

In Part I, the longitudinal study, available information from the Georgia Department of Education was used to determine frequencies and percentages of the January 1965 population of beginning teachers who remained in teaching for one or two years in the same system, who moved to another system within the state, and who withdrew from teaching in Georgia. These data were obtained by collating the January 1965 population with a January 1967 population of teachers who reported none, one, or two years experience. The information obtained in this manner included certificate type (as of 1965), sex, race, and system of employment. These data are reported in the first section of Chapter 4.

The second section of Chapter 4 provides a comprehensive summary of the responses of 1,037 teachers in the September 1964 population to the GBTQ. The first section of the GBTQ contains items designed to provide general information about the respondent. These items were employed as independent variables in a contingency analysis of the items in the other four sections, which were used as dependent variables as follows:

Choice of vocation	5 items
Teacher preparation	38 items
Teaching experience	47 items
Future career plans	4 items

The chi-square contingency test was employed to test the significance of differences between observed and expected frequencies. The ten independent variables were certification status, age, sex, race, marital status, college (location) of teacher preparation, type of degree, major field of preparation, level of teaching (primary, elementary, junior high, or senior high), and field of teaching. Because of the nature of the study, more attention is focussed on certification status than the other independent variables.

The data for Section 2 were processed by the University of Georgia Computer Center using the BMD02S program (Dixon, 1965, pp. 341-356). Because of the enormous volume of data generated by this analysis, the report is given in two parts: (1) a fairly detailed report of the results of certification status, and (2) a brief summary of the decisions (tests of significance) of the other nine independent variables.

Section 3 of Chapter 4 reports an analysis of factors related to the early withdrawal of teachers from the profession in Georgia. A brief resurvey of the September 1964 population was made, followed by an intensive follow-up study using the TAS of a sample of 392 teachers who withdrew from teaching. Responses to 11 TAS factors were compared by the independent variables sex, age, educational level of father, educational level of mother, type of certificate, level of assignment, size of system, reason for leaving the profession, present employment status, and plans to teach again. The chi-square contingency test, using the BMD02S program, was again employed.

Section 4 of Chapter 4 reports a similar analysis of 428 teachers who remained in teaching for three years, from 1964 through the school year 1966-67. This sample was obtained by a random sampling of the September 1964 population who were still teaching in Georgia in January 1967. A procedure similar to that employed in Section 3 involving a comparison of independent factors with the 11 TAS factors was employed.

Section 5 reports the results of factor analyses of the teacher dropout group of Section 3 and the teacher "stay-in" group of Section 4.

First-order factors were obtained by the BMD03M program (Dixon, 1965, pp. 169-184) and second-order factors were obtained by a procedure described by Comrey (Messick & Ross, 1962, pp. 11-26) involving factored homogeneous items. Finally these two factor analyses are compared for congruence by the method described by Harman (Harman, 1960).

To test the hypotheses that the variables certification status, sex, teaching field, and place of training (Georgia colleges *versus* non-Georgia colleges) would have a random effect upon the role expectations and other self-reported variables and the *COR* and *POSR* data, the least-squares analysis of variance was used. The least-squares analysis of variance gives simultaneous consideration to all effects by the method of fitting constants in which direct matrix arithmetic is used (Harvey, 1960). This method was chosen because there were disproportionate subclass frequencies which caused the different classes of effects to be nonorthogonal. First-order interactions were also obtained. Figure 2 shows the least-squares analysis of variance design. The MUGALS program, written by the programming staff of the University of Georgia Computer Center was employed for this analysis. When differences between a set of means were found to be significant, the Duncan New Multiple Range Test designed for unequal sample size was used. The results of this analysis are presented in a series of tables and charts in Chapter 5.

Figure 3 presents the research design for the chi-square analysis of the responses of the 470 beginning teachers in Part II of the study to the *GBTQ*. This contingency analysis consists of four independent (row) variables (the same four mentioned above: certification status, sex, teaching field, and place of training) with the 94 dependent (column) variables in the *GBTQ*. The results of this analysis are given in the second section of Chapter 5.

This chapter has presented a description of how the populations and samples were obtained, the instruments employed, and the procedures for analyzing data. Chapter 4 presents the findings relating to Part I of the study which is concerned with the 1964-65 beginning teacher population with a follow-up through 1966-67.

Source of Variation	df	Criteria 1-5 TPQ	6-8 IAV	9-18 TCS	19-21 TERP Scale	22-26 POSR	27-33 COR
Sex	1						
Men (159)							
Women (283)							
Certificate	1						
Professional (232)							
Provisional (210)							
Field	4						
Elementary (123)							
English (75)							
Mathematics (83)							
Science (85)							
Social Studies (76)							
Place of College Training	1						
Georgia College (256)							
Non-Georgia College (186)							

Interactions

SEX x CERTIFICATE

df 1

Sex	Certificate T-4	B-4
M	62	97
F	170	113

SEX x PLACE OF COLLEGE TRAINING

df 1

Sex	Place Ga.	Non-Ga.
M	91	68
F	165	118

CERTIFICATE x PLACE OF COLLEGE TRAINING

df 1

Cert.	Place Ga.	Non-Ga.
T-4	131	101
B-4	125	85

SEX x FIELD

df 4

Field	Sex M	F
Elementary	26	97
English	15	60
Mathematics	37	46
Science	48	37
Soc. Stu.	37	39

CERTIFICATE x FIELD

df 4

Field	Certificate T-4	B-4
Elementary	63	60
English	42	33
Mathematics	46	37
Science	40	45
Soc. Stu.	41	35

FIELD x PLACE OF COLLEGE TRAINING

df 4

Field	Place Ga.	Non-GA
Elementary	67	56
English	51	24
Mathematics	55	30
Science	47	38
Soc. Stu.	38	38

Figure 2. Research Design for Least Squares Analysis of Variance of Continuous Variables.
Total sample adds to 442; since 28 subjects were lost in this analysis because of incomplete data.

Source of Variation	Choice of Vocation 5 Items	Teacher Preparation 38 Items	Teacher Experience 47 Items	Teaching as a Career 4 Items
Sex				
Men (170)				
Women (300)				
Certificate				
Professional (250)				
Provisional (220)				
Field				
Elementary (128)				
English (82)				
Mathematics (87)				
Science (92)				
Social Studies (81)				
Place				
Georgia (276)				
Non-Georgia (194)				

Figure 3. Research Design for GBTQ Chi-Square Analysis

CHAPTER IV

Findings of Part One, The Longitudinal Study

The first objective of the longitudinal study was to determine some of the characteristics of the 1964-65 beginning teacher population in Georgia and to follow this group for three years. Two populations of beginning teachers were identified: a September (1964) population nominated by system superintendents from requests submitted to them and a January (1965) population obtained from the official payroll cards processed by the electronic data-processing equipment of the Systems and Data Processing Division of the Georgia Department of Education. The first section of this chapter is a summary of the data obtained from the State Department of Education from the duplicate (reproduced) IBM cards of the January populations for 1965, 1966, and 1967.

Cards and lists were obtained for the teachers during these years who reported respectively, no years of prior teaching experience (1965), no and one year of teaching (1966), and no, one, and two years of teaching experience (1967). By a process of collating the certificate numbers and, where the certificate numbers had not been assigned, the names of the teachers, it was possible to separate the teachers into discrete categories by race and sex and by certificate type. In a few instances it was necessary to check the individual folders of the teachers for incomplete data, but the availability of the cards reduced this time-consuming activity to a minimum. The results of this process are given in a group of tables and charts.

Follow-Up of January 1965 Population

Table 1, presents the frequency distribution of the numbers and percentages of the January 1965 Georgia beginning teacher population classified by professional and provisional certification falling within each of several retention - withdrawal categories. The vast majority of the teachers were in the four-year-trained category and the very small number of five-year trained teachers (less than one per cent of the total) were

Table 1

Number and Percentage of 1965 Beginning Teachers by Type of Teaching Certificate Falling Within Each of Several Retention - Withdrawal Categories

Category	Professional		Provisional		Total	
	No.	%	No.	%	No.	%
Teachers Teaching for Three Years (1965, 1966, 1967)	1,321	46.1	167	24.7	1,488	42.0
(Teachers Moving from One System to Another Within Georgia during Period 1965 to 1967) #	(296	10.3	44	6.5	340	9.6)
Teachers Teaching in 1965 Not Teaching in 1966, and Returning to Teaching 1967	139	4.9	28	4.1	167	4.7
Teachers Teaching in 1965 and 1966, but Not Teaching in 1967	373	13.0	86	12.7	459	13.0
Teachers Teaching in 1965 Who Dropped out after One Year of Teaching	1,030	36.0	396	58.5	1,426	40.3
Total Beginning Teaching Population, January 1965	2,863	100.0	677	100.0	3,540	100.0

# These teachers are included in the first category as a subpopulation of teachers remaining in teaching for the three-year period.

The percentages in the table are to be read vertically; each subgroup of professional teachers is a percentage of the column of professional teachers, etc.

combined with the four-year teachers. A few emergency certificates of less-than-four years (B-3, T-3) were also combined with the respective professional and provisional subpopulations. As the high value of the chi-square test (127.8; $P < .001$) indicates, the type of teaching certificate is clearly related to the incidence of remaining in or early withdrawal from teaching. Of the 1,488 teachers teaching for the entire three-year period, 1,321 were professionally certified, whereas 167 were provisionally certified. Since the professionally certified teachers represented 80.9 per cent of the total January 1965 beginning teacher population, the expected values from the independence hypothesis were 1,203 professional and 285 provisional teachers. Stated differently, 89 per cent of the 1,488 teachers teaching for the full three years were professionally certified, whereas only 11 per cent were provisionally certified teachers.

Careful reading of Table 1 also reveals that the group of 1,426 teachers who withdraw from teaching after only one year were made up of 1,030 professional and 396 provisional teachers; the corresponding percentages were 72.2 professional and 27.8 provisional teachers. According to the independence (null) hypothesis, if certification status were not related to the decision of the teacher to withdraw from teaching after one year, the numbers of teachers in the two certification categories who would be expected to drop out would be 1,153 professional and 273 provisional. Thus the net holding power of the professional certificate indicated a net gain of 118 (1,321 minus the expected number, 1,203) and a corresponding 123 teachers who did not drop out after the first year (the observed 1,030 as compared with the expectation of 1,153). The difference between the 118 net gain and the 123 less who did not withdraw after one year may be accounted for by the greater proportion of professional teachers who returned to teaching in 1967 after being out of teaching for one year in 1966. It is somewhat interesting to speculate that these persons may have been women who returned after a year's maternity leave, or perhaps a few persons may have returned for a year of graduate study. Most of these beginning teachers are in their twenties, during the years in which the birth rate is relatively high. It may also be observed that approximately ten per cent of these teachers remained in teaching, but moved from one system to another within the state. This movement was slightly more characteristic of professional teachers than provisional teachers (10.3 per cent as compared with 6.5 per cent). These proportions are roughly comparable to the proportions of the two certification groups teaching for the full three-year period (87 per cent of these "mobile" teachers, as compared with 89 per cent of all three-year teachers, were professionally certified). Teachers teaching for two years and then dropping out were represented in almost exact proportions to those which would be expected by the null hypothesis; (373 professionals actually dropped out as compared with 371 to be expected if certification status were unrelated to retention status). Figure 4 depicts the relationship of certification status and retention graphically.

Computing percentage values for the frequencies in Table 1 by row instead of by column gave 88.9 per cent of professional teachers remaining for three years; 87.1 per cent moved from one system to another within the state, 83.2 per cent taught in 1965 and 1967, but not in 1966. Teachers who taught for two years, then dropped out were 81.3 per cent professionally certified, whereas only 72.2 per cent of those teaching only one year were professionally certified.

Table 2 provides information concerning the relationship of sex and race to the incidence of retention in or withdrawal from teaching during the first three years. Careful analysis of the table indicates that the Negro teachers who entered teaching in 1965 were much more likely to remain in teaching for three years. This fact was particularly true of Negro women as compared with white women. Where 60 per cent of Negro women were still teaching 1967, only 36.7 per cent of white women remained. Although the contrast was not quite so great, a higher proportion (48 per cent) of Negro men were teaching than white men (42 per cent) after three years. In terms of the teaching population, white women were the largest single group (61 per cent of the total, with 17 per cent white men, 6 per cent Negro men and 16 per cent Negro women). The white women teachers who represented by far the largest sex-race

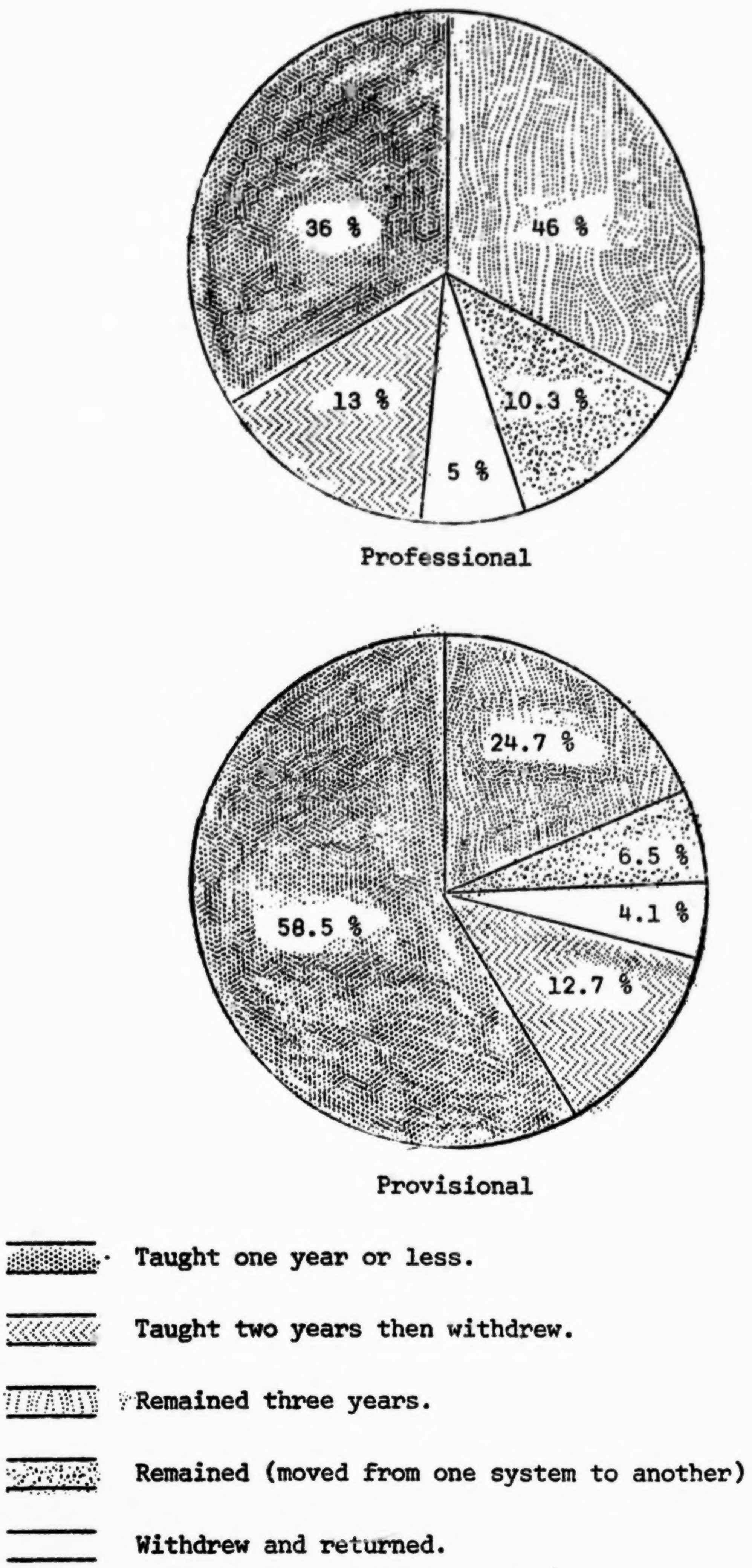

Figure 4. **Comparison of Retention Status** of 1964-65 Professional and Provisional Teachers After Three Years.

Table 2

Number and Percentage of 1965 Beginning Teachers by Sex and Race Falling Within Each of Several Retention - Withdrawal Categories

Retention Category	White Male No.	White Male %	White Female No.	White Female %	Negro Male No.	Negro Male %	Negro Female No.	Negro Female %
Teachers Teaching for Three Years (1965, 1966, 1967)	249	42.1	798	36.7	101	48.1	340	60.1
(Teachers Moving From One System to Another Within Georgia during period from 1965 to 1967) #	(62	10.5	182	8.4	19	9.0	77	13.6)
Teachers Teaching in 1965, Not Teaching in 1966, and Returning to Teaching 1967	18	3.0	121	5.6	2	1.0	26	4.6
Teachers Teaching in 1965 and 1966, but Not Teaching in 1967	57	9.7	327	15.0	24	11.4	51	9.0
Teachers Teaching in 1965 Who Dropped out After One Year of Teaching	267	45.2	927	42.7	83	39.5	149	26.3
Total	591	100.0	2,173	100.0	210	100.0	566	100.0

# These teachers are included in the first category as a subpopulation of teachers remaining in teaching for the three-year period.

The percentages in the table are to be read vertically; each subgroup of white male teachers is a percentage of the column of white male teachers, etc.

The chi-square test of independence with nine degrees of freedom (omitting the subpopulation of moving teachers) is 144.3 $P < .001$.

(Data: Courtesy of Georgia Department of Education.)

category not only dropped out after one year of teaching in greater proportions than would be expected by the independence hypothesis, but also were observed in greater frequency than to be expected in the group who taught one year, dropped out, and then returned, and the group who taught for two years and then dropped out. Thus, where the actual numbers of white women teachers who remained for the three-year period; dropped out and then returned for the third year; taught for two years and then dropped out; and dropped out after only one year; were 798, 121, 327, and 927, respectively, the numbers which would be expected according to the null hypothesis would be 1160, 130, 358, and 1112, respectively. Thus, 362 fewer white women were in the three-year group and 175 more white women were in the early (one-year) withdrawal group than to be expected. By contrast, among the Negro women teachers, the numbers of observed (actual) as contrasted to expected frequencies for the four groups, (all three years, first and third, first and second, and first only) were respectively: 340, 238, 26, 27; 51, 73; and 149, 228. Thus, Negro women teachers were the most stable and the white women teachers were the least stable teacher groups.

Although the men teachers who represented 17 per cent (white) and 6 per cent (Negro) of the total groups differed somewhat, they were not as obviously disparate as the women. More Negro men than expected (101 as compared with 88) remained in teaching and fewer dropped out of teaching (83 as compared with 85). (The observed frequencies of the other groups were very close to expectations.) Among white men teachers, 249 stayed in teaching (as compared with the 248 to be expected), whereas 267 dropped out after one year (as compared with 238 to be expected). The discrepancy was indicated by a somewhat smaller number than expected of white men who taught two years (57 as compared with the expected 77) and those returning for a third year after one year's leave (18 as compared with an expected 28).

Expressing the numbers in Table 2 as row percentages (as contrasted with column percentages), the white women constituted more than half of all the groups, as follows: 61 per cent of the total, 54 per cent of remaining and mobile teachers, 72 per cent of those teaching in 1965 and 1967, 71 per cent of teachers teaching two years and then withdrawing and 65 per cent of teachers teaching only one year. For the totals, 17 per cent were white men followed by 16 per cent Negro women and 6 per cent Negro men. Teachers remaining for three years for these three groups were, respectively, 17, 23, and 7 and those dropping out were, 19, 10, and 6.

It is apparent from these data that young women are somewhat likely to be in-and-out of the teaching profession, because of the concurrence of the early years of marriage with the early years of teaching. This phenomenon seems to be less characteristic of Negro women teachers. Another clear implication is that young men, especially white men, seem to drop out of teaching after one or two years in excessive numbers. (It is recognized that some of the withdrawing may represent a call to military service, a recognition that teaching is not a suitable career, a period of vocational experimentation, and various other phenomena which would result in a normal loss of professional personnel.) In the absence of comparative data, it is speculation that this amount of loss is excessive. It is highly doubtful, however, that other professional groups such as physicians, lawyers, nurses, and even ministers, find 40 per cent withdrawing after one year and 13 per cent after two years of professional service. Since it is generally recognized that teacher education provides a sound general education for numerous other types of work, the teaching profession itself as well as the general public whose interests in education are so vital should study carefully ways and means to reduce this apparently excessive early mortality.

Although studies of samples of teachers have previously been reported, to the authors' knowledge, this brief report of a few selected characteristics of the January 1965 Beginning Teacher Population of Georgia represents the first study of its type, one which provides "hard" facts on how many teachers remain, return, and leave teaching during the first three years following entry upon professional work.

This section reports in some detail the findings of a study relating responses to 94 dependent variables of a sample from the September 1964 population of beginning teachers to the independent variable of certification status.* A conceptual model is presented and findings are discussed in terms of this model. Following this section is a brief summary of findings relating nine other independent variables to the 94 dependent variables. These 94 dependent variables are responses to specific items of the GBTQ.

Perceptions of Beginning Teachers as Related to Certification Status

The population of beginning teachers in Georgia is not a static group. Teachers enter and leave the profession every school day. This statement does not imply that most teachers teach for only a short time, but indicates that descriptions of a group vary somewhat from time to time. In September 1964, the superintendents reported a total of 2,666 beginning teachers, ranging from no teachers in twelve systems to 299 in DeKalb County and 318 for the Atlanta system. Whereas the total Georgia teaching population in 1964 was 31 per cent Negro and 69 per cent white, the beginning teacher group was 22 per cent Negro and 78 per cent white. The systems reported 46 per cent elementary and 54 per cent secondary teachers. Slightly more than 15 per cent of the population was provisionally certified.

Description of the Sample

On November 1, 1964, a 109-item questionnaire was mailed to all beginning teachers in the September population. More than 1,000 (actually about 42 per cent of the group) responded. The questions were divided into five major categories: (1) descriptive information; (2) items regarding choice of teaching as a career; (3) perceptions of the teacher preparation program; (4) perceptions of the teaching experience; (5) future plans for teaching.

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* The findings from this study were reported in part in a research article, "Selected Perceptions of Beginning Teachers in Georgia as related to Certification Status," by Joseph C. Bledsoe and Ralph Lightsey, *Journal of Teacher Education*, 17 (1966), 481-493.

The sample of teachers responding to the questionnaire was composed of 24 per cent men and 76 per cent women. Eighty-three per cent of the teachers were white and 17 per cent were Negro. Groupings formulated according to level of teaching placed 21 per cent of the teachers at the primary level, 16 per cent at the upper elementary, 17 per cent at the junior high school and 46 per cent at the high school level. Professional certificates were held by 80 per cent of the group, and 20 per cent were provisionally certified.

Approximately one-third of the teachers received the Bachelor of Arts degree and two-thirds graduated with the Bachelor of Science degree. Ninety per cent of the Negros received their training in Georgia; whereas only 55 per cent of the whites received their education in schools within the state. Nearly all the remaining 10 per cent of the Negro teachers were educated in Alabama, Florida, and South Carolina. Approximately 32 per cent of the white teachers were trained in the five states that border Georgia. The other 13 per cent received their preparation in institutions scattered throughout the nation. Nearly 70 per cent of the white teachers who were educated in Georgia attended institutions in the University System. The others attended private or church-related schools.

More than 85 per cent of the respondents were between 20 and 24 years of age, but the ages ranged to the 50 years and over bracket. Taking all ages together, 55 per cent of the teachers were single, and 43 per cent were married. The other 2 per cent were widowed or divorced.

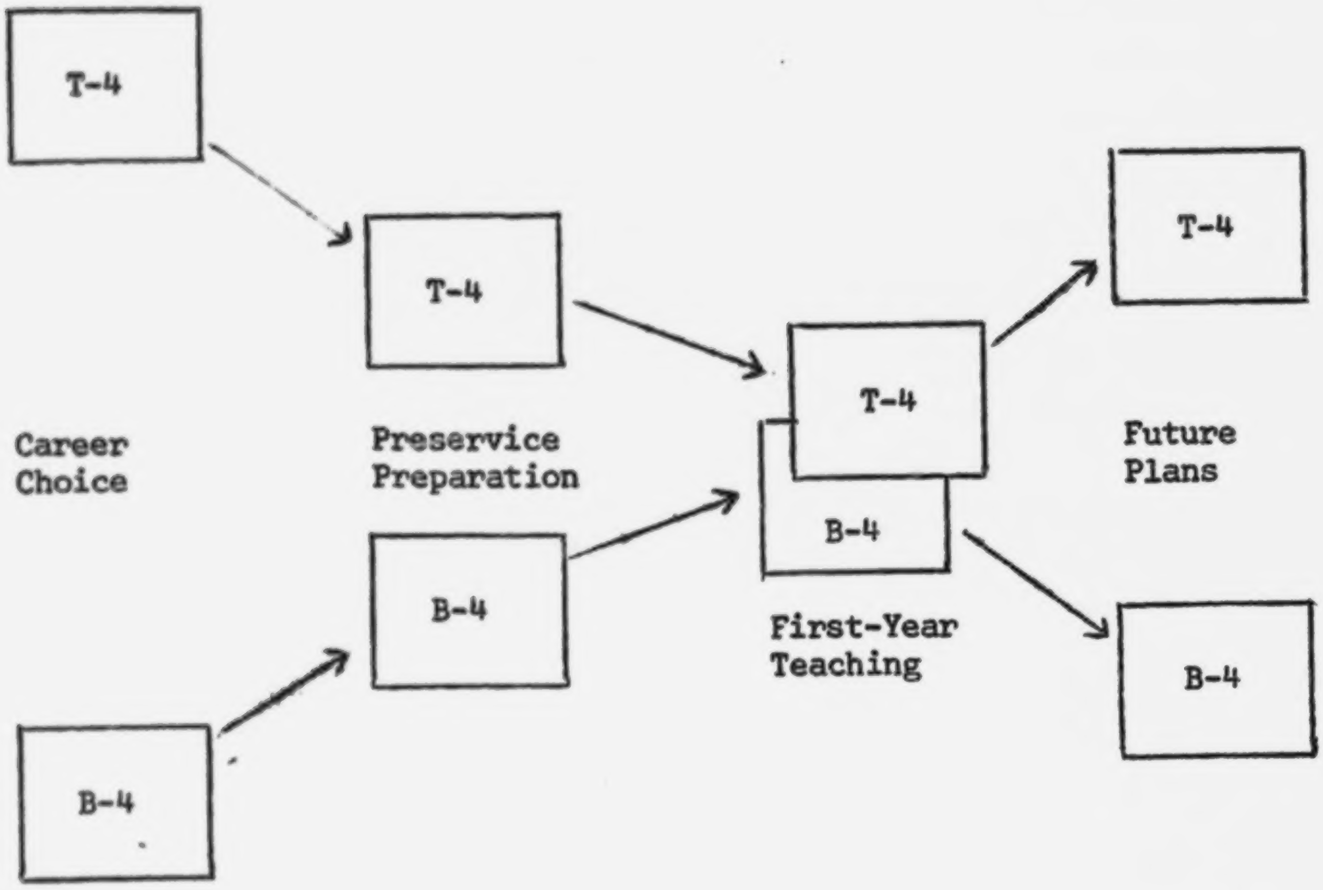
Nearly 85 per cent of the respondents had no children. Another 7 per cent reported one child. The other 8 per cent indicated that they had two or more children, the number ranging up to six in some cases.

Conceptual Model

From a theoretical standpoint, it was hypothesized that the two groups (T-4 and B-4) would be different in their reactions to the choice of career, their reactions to their teacher-training experiences, and their future plans, but would not react differently to their beginning teacher experiences. More specifically, it was theorized that professional teachers would indicate earlier choice of teaching, greater satisfaction with the choice, greater interest in people as a factor in the career choice, relatively greater satisfaction with the teacher education preparation, and a greater proportion planning to follow teaching as a lifelong career. In their reactions toward the experiences encountered during the first year of teaching, the groups would be more nearly alike. The conceptual model is represented in Figure 5.

Operational null hypotheses concerning the opinions of professionally certified (T-4) and provisionally certified (B-4) teachers were formulated with respect to the following four major categories of response:

1. Choice of vocation (5 response items).
2. Evaluation of teacher preparation program (38 items).
3. First-year teaching experience (47 items).
4. Future plans for teaching as a career (4 items).


T-4
T-4
T-4
T-4
Career Choice
Preservice Preparation
Future Plans
B-4
B-4
B-4
B-4
First-Year Teaching

T-4 = professionally certified teachers

B-4 = provisionally certified teachers

Figure 5. Expected Patterns of Perceptions of Beginning Teachers

Findings

The findings are discussed within the four major areas indicated by the conceptual model: choice of vocation, teacher preparation program, beginning teaching experience, and teaching as a career.

Choice of Vocation. Table 3 summarizes the tests of the hypotheses concerning choice of vocation. All five questions were answered quite differently (.01 level of significance) by the two certification groups. In reply to the question, "When did you first consider teaching as a career?" the professionally certified teachers indicated that they made the decision to teach much earlier than did the provisional group. Most T-4 teachers decided to teach before going to college, whereas B-4 teachers made the decision typically within the last two years of college or even after graduation. Teaching was much more frequently the first choice of the professionally certified group. Professionally certified teachers expressed much greater satisfaction with their choice of teaching at the time of graduation than did the provisional teachers. The questions concerning the internal and external factors predisposing the choice of teaching elicited distinctly different responses from the two groups. Professional teachers gave as their most frequent reasons the desire to work with children and encouragement by former teachers, whereas provisional teachers indicated as relatively more important a stronger value for the feeling that one can make the greatest contribution to society by teaching, greater interest in the subject, desire for security and prestige, and encouragement by friends.

There was a wide divergence of reaction to the question about the attractiveness of teaching as a career at the time of graduation. Professional teachers were markedly more favorable toward the profession.

Teacher Preparation Program. An examination of the responses revealed that the professional and provisional teachers differed significantly on 21 of 38 items dealing with the preparation programs. All except one of these differences were highly significant (.01 level).

Table 3

Summary of Decisions Regarding Tests of Hypotheses for Choice of Vocation

Item	X^2	df	Decision
1. When did you first consider teaching as a career?	197.25	6	Reject
2. Was teaching your first choice of a career?	62.08	1	Reject
3. Which external factor in the list below influenced you most to choose teaching as a career?	49.74	6	Reject
4. Which internal factor in the list below influenced you most to choose teaching as a career?	25.10	5	Reject
5. How did you regard teaching as a career for yourself at the time you were graduated from college?	154.70	4	Reject

The specific questions which did and did not differentiate the groups (null hypotheses could not be rejected) and a description of the nature of the differences are shown in Table 4.

In analyzing the specific nature of the responses which did and did not differentiate these two groups of beginning teachers, it may be observed that in most of the areas usually considered as general education there were no significant differences. Knowledge and understanding of biological and physical sciences were exceptions to this pattern; in both instances, professional teachers indicated perceptions of less satisfaction with their preparation. (These teachers may have taken less science or felt that their preparation was either inadequate or insufficient.) No differences in response were found for items concerning perceptions of the satisfactoriness of the program in subject areas, understanding of the community, student teaching, psychology, and in the number and types of suggestions for improving the teacher preparation program.

With the exception of the understanding of the physical and biological sciences (in which provisional teachers expressed greater satisfaction), the differences in the perceptions of the two groups seemed to be characteristic of skills, insights, and understandings associated with professional education. In all these items, professional teachers consistently expressed greater satisfaction with the preparation program. The most frequently prevailing response from the provisional teachers on most of these items was that their preparation program was neither satisfactory nor unsatisfactory. The implication was that these teachers were not particularly aware that their program prepared them in this area; that is, little attention was devoted to matters of group work, maintaining discipline, pupil-teacher planning, etc.

Beginning Teacher Experience. The conceptual model indicated that the groups would not be different in this respect, since it seemed likely that they would encounter somewhat similar teaching situations. Table 5 presents a summary of the tests of these hypotheses. On the 47 items, 36 did not differentiate the groups (i.e., the null hypotheses

Table 4

Summary of Decisions Regarding Tests of Hypotheses for Teacher Preparation Program

Item	X^2	df	Decision
1. Your teaching personality:			
a. Ability to work with children	30.30	4	Reject
b. Ability to work with colleagues	0.18	4	Not reject
c. Ability to work with members of the community	4.73	4	Not reject
d. Ability to maintain a friendly disposition	3.32	4	Not reject
e. Ability to lead a well-rounded life: to enjoy work and play	3.27	4	Not reject
2. Your general knowledge and understanding of:			
a. The physical sciences	18.39	4	Reject
b. The biological sciences	12.19	4	Reject
c. American culture and institutions	5.10	4	Not reject
d. Art, music, literature, philosophy	3.38	4	Not reject
3. Your ability to use the English language effectively	0.98	4	Not reject
4. Your knowledge and understanding of the subject areas you teach	2.32	4	Not reject
5. Your understanding of children and youth:			
a. Insight into causes of behavior	5.10	4	Not reject
b. Skill in working with exceptional children: the bright, the dull, the handicapped	14.74	4	Reject
c. Skill in group work	17.08	4	Reject
d. Skill in maintaining discipline	11.56	4	Reject
6. Your understanding of the nature of the learning process:			
a. Skill in helping students determine objectives	8.03	4	Reject
b. Skill in motivating students	13.78	4	Reject
c. Skill in pupil-teacher planning	28.53	4	Reject

(Continued on next page)

Table 4 (Continued)

Item	X^2	df	Decision
d. Skill in using a variety of teaching methods	44.61	4	Reject
e. Skill in evaluating pupil growth and class procedures with pupils	34.00	4	Reject
f. Ability to construct appropriate tests and learning materials	31.45	4	Reject
7. Your knowledge of sources of teaching materials:			
a. Printed materials	37.37	4	Reject
b. Audiovisual materials	33.14	4	Reject
c. Community resources and materials	26.17	4	Reject
8. Your ability to use teaching materials effectively	44.80	4	Reject
9. Your knowledge and understanding of the community:			
a. The purposes of the school in relation to the overall purposes of society	12.70	4	Reject
b. The social standards of the community and their meaning for education	1.56	4	Not reject
c. The institution of the community	3.01	4	Not reject
d. The different value-patterns of social-economic classes	1.81	4	Not reject
e. The economic life of the community	1.27	4	Not reject
10. Your evaluation of the following teacher preparation experiences:			
a. Student teaching (if applicable)	0.0	4	Not reject
b. Observing other teachers	35.07	4	Reject
c. Subject matter courses	3.40	4	Not reject
d. Psychology courses	1.15	4	Not reject
e. Teaching methods courses	19.32	4	Reject
f. Professional practicums and seminars	16.96	4	Reject
g. Professional education courses	26.42	4	Reject
11. What suggestions do you have for improving your teacher education program?	6.20	5	Not reject

Table 5

Summary of Decisions Regarding Tests of Hypotheses for Teaching Experience

Item	X^2	df	Decision
1. How did you get your teaching job?	3.44	4	Not reject
2. Were you assigned to the job that you were promised?	0.47	1	Not reject
3. If not, were you disappointed?	5.73	1	Reject
4. When you first started to work, what was the general attitude of the other classroom teachers toward you?	1.85	2	Not reject
5. Did you encounter any conflict between the ideas and philosophy you had formed while in college and the ideas and philosophy of your principal?	20.90	3	Reject
6. What orientation to your teaching responsibilities have you had on the local level?	5.04	4	Not reject
7. Do you consider this orientation adequate?	1.21	1	Not reject
8. How much help have you received in each of the following since you have been teaching?			
a. Understanding the goals of the school	2.74	2	Not reject
b. Developing better personal qualities as a teacher--voice, poise, emotional control, etc.	1.23	2	Not reject
c. Understanding and using special school services--standardized test results, remedial reading, psychologist, etc.	10.06	2	Reject
d. Keeping and making out official records and reports	2.06	2	Not reject
e. Understanding and using courses of study and curriculum guides	1.73	2	Not reject
f. Making effective use of community resources.	3.13	2	Not reject

(Continued on next page)

Table 5 (Continued)

Item	X^2	df	Decision
g. Handling disciplinary problems	1.67	2	Not reject
h. Planning for and working with gifted and retarded children	2.53	2	Not reject
i. Getting acquainted with the community and its people	0.75	2	Not reject
j. Understanding your extra-curricular activities	0.87	2	Not reject
9. To what extent have you received help with the items mentioned above from the persons listed below?			
a. Principal	0.39	2	Not reject
b. Supervisor or consultant	0.90	2	Not reject
c. Fellow classroom teachers	0.18	2	Not reject
d. Visiting teacher	0.22	2	Not reject
e. Counselor	3.86	2	Not reject
f. Superintendent	0.37	2	Not reject
g. Student	4.66	2	Not reject
10. Do you feel that your community expects too much of you personally?	1.78	1	Not reject
11. Do you feel that your community expects too much of you professionally?	1.19	1	Not reject
12. To what degree do you feel that you are socially accepted?	1.05	5	Not reject
13. How does your teaching assignment compare with that of the more experienced teachers of the same grade or subject?	1.28	2	Not reject
14. Do you think that your salary as a beginning teacher is adequate?	9.24	1	Reject
15. Do you supplement your income by working at another job?	18.17	1	Reject
16. Are you presently enrolled in a formal college course?	27.09	1	Reject
17. To what extent has each of the following professional activities been a matter of concern or anxiety to you in your first year of experience?			

(Continued on next page)

Table 5 (Continued)

Item	X^2	df	Decision
a. Keeping abreast of recent professional developments	5.83	2	Not reject
b. Evaluating pupil progress	3.85	2	Not reject
c. Using teaching aides	1.73	2	Not reject
d. Planning learning activities for students	1.34	2	Not reject
e. Keeping and preparing records and reports	7.04	2	Reject
f. Understanding the goals of the school	2.07	2	Not reject
g. Handling disciplinary problems	0.37	2	Not reject
h. Working with exceptional children	0.17	2	Not reject
i. Understanding and using courses of study and curriculum guides	3.83	2	Not reject
j. Motivating pupils who seem disinterested	3.49	2	Not reject
k. Relating to parents	21.80	2	Reject
l. Making effective use of community resources	5.88	2	Not reject
m. Getting acquainted with the community	1.60	2	Not reject
18. What has been your greatest satisfaction in teaching so far?	18.30	5	Reject
19. What has been your greatest dissatisfaction in teaching so far?	23.11	5	Reject
20. What has been your greatest surprise in teaching so far?	18.53	5	Reject

could not be rejected). Eleven differences were significant, nine of which were highly significant (.01 level), and two were significant at the .05 level.

The items which differentiated the two groups included question 3, If not [assigned a promised position], were you disappointed? Only 120 teachers (11 per cent) answered this question and more professional teachers than expected expressed disappointment in their assignments. Professional teachers indicated more than expected disagreement with the educational philosophy of the principal, whereas more than expected proportions of the provisional teachers did not know if there was a conflict. Fewer than expected professional teachers indicated that they had received no help in understanding and using special school services (standardized test results, remedial reading, etc.), whereas more than expected provisional teachers said they had received some or much help. (It is conceivable that there could have been a greater need for this help where the professional education sequence had not been followed.) With respect to the adequacy of the beginning teacher's salary, more than expected professional teachers said they thought it was adequate, whereas provisional teachers gave more than expected negative responses. This response could conceivably have been accounted for by an understanding and acceptance by the professional teachers of this facet of the profession, and more than likely it was somewhat related to the expression of greater satisfaction in and acceptance of the teacher role by professionally certified teachers. More provisional teachers than expected under the null hypothesis indicated that they supplemented their teaching income by working on another job; also considerably more than expected proportions of these teachers were enrolled in a formal college course (perhaps accounted for by their efforts to upgrade the certificate); more than expected indicated that keeping and preparing records and reports and relating to parents had not been a concern and anxiety to them.

Provisional teachers indicated that helping students to learn provided their greatest satisfaction in teaching, while professional teachers stated that watching their students progress was relatively more satisfying.

Relatively more provisional and fewer professional teachers stated that indifference on the part of students, parents, and supervisors had been the source of greatest dissatisfaction in teaching; whereas professional teachers gave proportionately more frequent responses indicating lack of materials and facilities, discipline problems, and the many nonteaching duties as their greatest source of dissatisfaction.

Indifference on the part of students, parents, and supervisors or pressure from parents or administrative superiors was given by proportionately more provisional teachers as the greatest surprise encountered. Professional teachers reported relatively more frequently that the challenge of the profession and the many non-teaching duties had been most surprising to them.

Views on Teaching as a Career. Three of the four questions about views on teaching as a career elicited significantly different responses from the two groups (see Table 6). Considerably more professional teachers and fewer provisional teachers than expected indicated that their present attitude was "satisfied" or "very much satisfied," with considerably more provisional teachers "indifferent" or "dissatisfied."

When asked how long they expected to teach, more provisional teachers than expected gave one year or six to ten years, whereas greater proportions of professional teachers reported two to five and eleven to twenty years. Observed frequencies in the over-twenty-years categories were almost precisely equal to expected frequencies (i.e., no difference between the groups). The big difference in responses was in the one-year category, where one in five provisional teachers indicated the first year would be the last, as compared with one in sixteen professionally certified teachers.

Table 6

Summary of Decisions Regarding Tests of Hypotheses for Views on Teaching as a Career

Item	X^2	df	Decision
1. Which of the following best describes your present attitude toward teaching?	14.55	4	Reject
2. How long do you plan to continue teaching?	38.45	4	Reject
3. If you expect to teach less than five years, do you plan to return to teaching later?	3.64	1	Not reject
4. If you do not plan to stay in the teaching profession, why are you leaving it?	21.43	4	Reject

Although the difference in the responses of the two groups to the question, "If you expect to teach less than five years, do you plan to return to teaching later?" approached significance ($X^2 = 3.64$ with one degree of freedom), the hypothesis of no difference could not be rejected.

The final question, "If you do not plan to stay in the teaching profession, why are you leaving it?" elicited responses from 273 professional and 83 provisional teachers. Their reasons clearly differentiated the perceptions of the two groups. Family responsibility was a more frequent response of the professional teachers, whereas to get a job that pays a higher salary, a dislike for teaching, and to obtain more education were relatively more frequent responses of provisional teachers.

Perceptions of Beginning Teachers as Related to Other Independent Variables

This section is a brief summary under the four major headings of the 94 "dependent" response items of the questionnaire and includes description of the major outcomes along with some indications of subgroup differences. Nine different "independent" variables are involved. These are nine ways of rearranging the responses such as by sex, race, age, etc. Table 7 provides a summary of the results of chi-square tests of independence which were applied to the 94 items for these nine independent sources. One caution in possible interpretation of these findings should be pointed out. The report summarized herein is based on one-way analyses of independent variables as related to 94 response (dependent) variables. The independent variables themselves (age, sex, level of teaching, etc.) are not unrelated. For example, most elementary teachers are women and these two "independent" variables in the one-way classifications would show somewhat similar responses in the one-way analyses. A cross-class two-way analysis, while no doubt revealing, would require more elaborate and extensive analysis beyond the scope of this report.

Table 7

Summary of Decisions (Chi-Square Tests of Significance) of Responses of Beginning Teachers Classified by Various Groupings (Rows) within Four Categories of Response (Columns)

	Choice of Vocation (5 items)		The Teacher Preparation Program (38 items)		Their Teaching Experiences (47 items)		Their View of Teaching as a Career (4 items)	
	Signif.	Non-Signif.	Signif.	Non-Signif.	Signif.	Non-Signif.	Signif.	Non-Signif.
Sex	5	0	14	24	17	30	2	2
Race	4	1	37	1	30	17	3	1
College of Teacher Preparation	3	2	16	22	10	37	2	2
Degrees	3	2	19	19	8	39	2	2
Major Field of Preparation	5	0	31	7	16	31	2	2
Levels of Teaching	5	0	23	15	18	29	2	2
Field of Teaching	3	2	15	23	25	22	2	2
Age	5	0	4	34	5	42	0	4
Marital Status	2	3	5	33	12	35	1	3

Choice of Vocation

It is clear from Table 7 that the factors of sex, race, major field, level of teaching, and age made a difference in responses to items in the choice of vocation. To a lesser extent, type of degree and institution revealed differences. In general, most teachers had chosen to teach by the end of the sophomore year in college. A clear pattern emerged in which women chose teaching much earlier than men, elementary teachers earlier than did high school teachers (in fact, the "higher" the grade level the later the career was chosen), white teachers later than Negroes, and younger teachers earlier than older teachers. Teachers with B.S. degrees (mostly B.S.Ed.) made earlier decisions than the A.B. teachers. Among subject area teachers (mainly high school level), music and English teachers chose teaching relatively early, while teachers of mathematics, science, social studies, and business education chose teaching relatively late, frequently after graduation. Graduates of private colleges and some of the non-Georgia southeastern colleges made later decisions as compared with other institutions.

About two-thirds of the total group indicated that teaching was their first choice as a career. The "yes" response was more typical of women, Negroes, elementary teachers, English teachers, and younger teachers.

The external influence reported most frequently was that of former elementary and high school teachers. Parents influenced elementary teachers, women, and younger teachers relatively more. Although college teachers were generally less influential, they were relatively more important for subject area teachers, particularly in art and industrial arts. Out-of-school factors influenced foreign language and speech correction majors most frequently.

The most frequently cited internal influence was the desire to work with children, especially for women and elementary teachers. High school teachers, subject teachers and men gave interst in their subject much more frequently. The opportunity to make their greatest contribution to society by teaching was identified by 20 per cent of the teachers as the most significant internal factor in choosing teaching. This choice was more frequent for men, white teachers, and those graduating from northeastern colleges. "Security and prestige" appealed to about 5 per cent as most important.

Nearly half the group regarded teaching as a career as highly attractive at time of graduation and about 40 per cent stated that it was fairly attractive. Only 75 (about 7 per cent) viewed it as definitely unattractive. Women, B.S. graduates, elementary teachers, and Negro teachers as a whole rated it relatively more attractive. Mathematics and science teachers were represented more frequently than chance expectation in the small proportion of respondents who viewed teaching as unattractive at graduation.

Teacher Preparation Program

Taken as a whole, the 1,000-plus teachers rated as either "fairly satisfactory" or "very satisfactory" their college experiences directed toward equipping them with the various necessary skills and understandings for teaching. In most instances, the modal (most frequently occurring) response was "very satisfactory"; this was especially true with respect to items about teaching personality (ability to work with children, colleagues, community, etc.). In the "general education" items (understanding of sciences, art, music, literature, philosophy, American culture, etc.) as well as in the understanding of children and youth, understanding of the nature of the learning process, ability to use teaching materials effectively, knowledge of sources of teaching materials, and understanding of the community, the modal response was "fairly satisfactory". A substantial percentage indicated that these areas were "very satisfactory". The student teaching, observation of teachers, subject matter courses, and psychology courses came out with "very satisfactory" as modal response, while the most frequent response given for methods courses, professional seminars, and professional education courses was "fairly satisfactory". With a few exceptions, at least 80 per cent of teachers gave either fairly satisfactory or very satisfactory as a response. Substantial numbers of teachers stated that their training was "neither satisfactory nor unsatisfactory". The relatively large "neutral" response of the provisionally-certified group was quite apparent, especially for many areas such as student teaching, methods courses, skills in motivating students, constructing tests and materials, utilizing materials, etc., where one received the impression that provisional teachers were not aware of having received any help in these areas.

When the responses of the total group were subdivided into the several sub-groups, it was apparent that older teachers, women, elementary teachers, teachers with B.S. degrees, graduates of Georgia Negro colleges and southeastern colleges expressed greater confidence in working with children, colleagues, and members of the community. Teachers with A.B. degrees expressed the most confidence in their ability to lead a well-rounded life.

Within the teacher preparation program understanding of the sciences was reported to be most satisfactory by men, graduates of Georgia, private, white colleges, teachers with B.S. degrees, and older beginning teachers. There was less satisfaction generally with understanding of the physical sciences than with the biological sciences. Elementary teachers were more confident in physical sciences, music and art, while secondary teachers were more satisfied with their knowledge of the biological sciences. Men generally were more satisfied with their knowledge of the sciences, and women with their knowledge of the fine arts and their understanding of American culture and institutions. Elementary teachers, graduates from Georgia Negro colleges, and teachers with A.B. degrees expressed the greatest satisfaction with their training in using the English language effectively.

More confidence in understanding the causes of behavior of children and youth, planning together with pupils, and understanding the learning process was expressed by women, teachers with B.S. degrees, and graduates from Georgia Negro colleges. More dissatisfaction was reported by all groups in handling discipline problems than in any other area of working with children. Men, Negro teachers, elementary teachers, and special education majors showed the most satisfaction with their training for working with gifted and retarded children. Teachers with B.S. degrees, women, and Georgia Negro college graduates indicated the greatest satisfaction with their knowledge of sources of teaching materials and their ability to use these effectively.

Understanding the community, its goals, structure, resources and people, was most satisfactory for B.S. degree teachers. Women indicated more confidence concerning understanding educational goals of the community while men felt more confident about their understanding of community structure and economics. Generally, there was less satisfaction among all groups concerning the community. This was particularly true for those graduates from colleges outside the southeast. This finding may indicate that many of the beginning teachers were in schools in unfamiliar communities.

A most noticeable comparison was the expression of much greater satisfaction with their training on the part of the Negro teachers. Although only about 20 per cent of the teachers gave expression of satisfaction, by far the most unsatisfactory evaluations were by white teachers. Generally fewer than 20 per cent made critical comments, with a substantial number of "neutral" comments by provisional teachers who apparently did not have a clearly favorable or unfavorable comment. An open-ended question soliciting suggestions for improving the teacher preparation programs produced a wealth of suggestions including increase in student teaching experience, providing more life-like teaching situations (making methods and curriculum courses more like real life and less like the ideal situations), permitting student teachers to teach and not act so much as teaching aides, and other responses. It is perhaps noteworthy that most of the suggestions pertained primarily to professional education as contrasted to general education and technical (i.e., background content) courses.

Beginning Teaching Experience

Over 80 per cent of the teachers in the sample secured their job through personal application. Many of the age group 20-24 and those with B.S. degrees indicated that they secured their job through the college placement service. Of the few who were not given the job promised, most dissatisfaction was evidenced by teachers with B.S. degrees and elementary teachers. Nearly all of the teachers reported being warmly received by other teachers. Little conflict between the teacher's philosophy and that of their principal was evidenced. In this respect, teachers from Georgia private white colleges indicated the least conflict, while the younger (20-24) age group and graduates from Georgia Negro colleges, reported the most conflict. Orientation into the school system, which was generally reported as satisfactory, was principally by a meeting of all teachers. Many of the 20-24 age group teachers indicated receiving a brief orientation from the principal.

The teachers reported receiving the most help in understanding school goals, preparing and keeping records and in handling discipline problems. The greatest dissatisfaction with help received was in the areas of developing better personal qualities as a teacher (voice, self-control, etc.), understanding special school services, working with gifted and retarded children, and in using curriculum guides. All groups reported the greatest help was received from fellow classroom teachers. Many reported that the principal gave help, but this was basically in the keeping of records and handling discipline. Special education teachers indicated that they received the most help from visiting teachers, supervisors, and counselors. Senior high school teachers identified counselors and students as other sources of help. Graduates from colleges outside the southeast reported receiving much help from their students.

Most teachers indicated that the community did not expect too much from them personally or professionally, although more-than-expected proportions of teachers with B.S. degrees were dissatisfied with professional demands placed on them. About 75 per cent indicated their assignment was about the same as that of more experienced teachers. Only 5 per cent indicated it was less difficult and 20 per cent said that it was more difficult than that of experienced teachers.

Beginning salary was rated as inadequate by all groups except those who were music and speech correction majors or widowed. Only 12 per cent of the total sample reported that they supplemented their salary with other employment. Most of those holding other jobs were graduates of Georgia private white colleges, high school teachers, and music majors. Of the 1 out of 10 who were enrolled in a formal college course, there were relatively more teachers with A.B. degrees, provisional certificates, and graduates from mid-continent and northeast colleges.

The major anxiety regarding professional activities was in the areas of evaluating pupil progress, keeping records, motivating disinterested pupils and handling discipline. Men showed more concern over professional growth; white teachers over use of teaching aids; home economics and vocational agriculture majors over use of community resources; and music, special education, and speech teachers with relating information to parents. Graduates from Georgia colleges and those with B.S. degrees expressed less confidence in all areas of professional activities while graduates from mid-continent and northeast colleges seemed more confident.

The greatest satisfactions in teaching were generally characterized in the respect received as teachers and in observing pupil growth and enthusiasm. Men indicated that their greatest dissatisfactions were indifference of pupils, parents and supervisors and pressure from the administration.

Future Plans for Teaching

When asked their present attitude toward teaching as a career, the overwhelming response was favorable (54 per cent were "satisfied" and 30 per cent "very much satisfied"). Less than 2 per cent were "very much dissatisfied", 9 per cent "dissatisfied", and 5 per cent were "indifferent". Considerably more-than-expected T-4 and fewer-than-expected B-4 teachers expressed satisfaction with teaching. Relatively higher proportions of men expressed satisfaction than was hypothesized. Other sub-groups expressing more-than-expected satisfaction were Negro teachers and teachers of music, mathematics, industrial arts, social studies, vocational agriculture and elementary education. Some of these groups. however, represented very small numbers.

As a total response, one-half of the subjects studied indicated that they planned to teach only 2 to 5 years. Close to one-fifth of the group planned to teach 20 or more years. Though not significantly different from responses of teachers at other levels, more senior high school teachers tended to plan to leave teaching after one year.

The three most frequently given reasons, by teachers in all groups studied, for leaving teaching were inadequate salary, family plans, and plans for the continuance of educational training. Many of the teachers leaving for further education or for planning families indicated an interest in returning to teaching at a later date.

Poor opinions of teaching as a career was cited by some groups of teachers planning to leave the field, but sample sizes for subjects in the fields indicated were too small to consider these responses as significant of the beginning teachers' opinion as a whole.

Factors Associated With Early Withdrawal from Teaching

Resurvey of School Systems, Fall 1965

The September 1964 Population of beginning teachers was identified by responses from the 196 system superintendents. In the fall of 1965, Booth (1966) made a resurvey of the September 1964 Population. This survey was designed for three purposes: (a) to determine the present employment of the 1964-1965 beginning teacher group; (b) to discover the reasons the systems gave for the withdrawal of teachers no longer in the system; and (c) to receive an expression of the desirability of having the teachers return who left the system.

Booth extended the GBTQ used by Lightsey (1965) in the survey of the September 1964 Population and requested information related to the purposes stated above. The revised questionnaire was sent to 236 persons in leadership positions in 165 of the 196 school systems. Each questionnaire sent to a school leader listed the beginning teachers of the system in 1964-1965. Provision was made on the questionnaire for responses to each of the major purposes of the resurvey. The school leaders receiving the questionnaire included personnel officers, curriculum directors, principals, and visiting teachers.

Responses were received from 159 of the 165 systems and information about 1,568 teachers was obtained. In addition to the 1,568 teachers from the 159 systems, data from 318 teachers from the Atlanta School System were collected by referring to the official minutes of the Atlanta Board of Education. Information was thus available on 1,886 teachers of the September 1964 Population.

Table 8 presents data on the 1965-66 employment status of the 1,886 teachers by type of certificate held. There were a small number of five-year certificated teachers (who hold Masters degrees). Since the great majority of teachers held four-year certificates, these few masters degree teachers were included under the appropriate rubric. (T-5 with T-4; B-5 with B-4). As indicated in Table 8, the percentage of professional teachers remaining in the same school was greater than the expected percentage while the percentage of provisional teachers remaining in the same school was smaller than the expected percentage. The percentage of professional teachers who left teaching was smaller than the expected percentage, and the percentage of the provisional teachers who left teaching was greater than the expected percentage.

The data further indicated that of the professionally certified teachers reported, the present employment was known on all except 4.2 per cent. Of the provisionally certified teachers, the present employment was unknown on a total of 9.1 per cent. These data suggest a possible difference in the stability of the two groups.

Table 8

Employment Status in Fall 1965 by Type of Certificate of September 1964 Beginning Teachers in 160 Georgia School Systems[a]

Employment Status	Professional No.	Professional %	Provisional No.	Provisional %	Total No.	Total %
Teaching in Same System						
Same School	985	63.3	164	50.0	1,149	60.9
Another School	14	0.9	5	1.5	19	1.0
Teaching in Another System						
Georgia	172	11.0	39	11.9	211	11.2
Another State	110	7.1	11	3.4	121	6.4
Left Profession	211	13.5	79	24.1	290	15.4
Employment Unknown	66	4.2	30	9.1	96	5.1
Column Totals	1.558	100.0	328	100.0	1,886	100.0

[a] Since 12 systems reported no beginning teachers in September 1964, this survey represents all except 24 of the 196 Georgia school systems.

Of the 1,886 teachers on whom information was obtained, 718 teachers left the 1964-1965 teaching position. Table 9 gives the number and percentage by certificate type of the reasons given by the system reporter for the teachers leaving. For the 59 teachers who left the Atlanta System, the reason listed was obtained from the official minutes of the Board of Education. Of those who left, 284 did so for marriage plans, husband's job transfer, and/or family responsibilities. In these three categories, greater percentages of professional teachers than provisional teachers were found. In all other categories with the exception of military service where identical percentages were found, the provisional teachers were more heavily represented proportionately. These categories were: left teaching for other work, returning to college, not reappointed, "other reasons", and no response. "Other reasons" included inadequate salary, to be nearer home, to try a new experience, and unhappy with teaching. No reason was given for 155 teachers who left teaching.

The third purpose of the resurvey was to elicit from the system respondent an expression of the desirability of having the teachers return to the system. In response to the questions, "Would you be pleased to have the teacher return?" there was a somewhat more favorable attitude toward having the professional teachers return than there was toward having the provisional teachers return. The frequency and percentages by certificate type are given in Table 10.

Of the 318 teachers who began teaching in Atlanta in 1964-1965, 285 were professionally certified and 33 were provisionally certified. Fifty-nine teachers left the profession after one year. Fifty professional teachers (18 per cent) left for "personal reasons" or "another position". Nine provisional teachers (27 per cent) left for the same reasons. Since the source of data was the official Board minutes, information concerning desirability of having teachers return was not secured about the Atlanta teachers who left teaching.

Summarizing the resurvey briefly, indications were that the beginning teachers were mobile; however, the professionally certified teachers were somewhat less mobile than the provisionally certified teachers. School

Table 9

Reasons Reported for Teachers Leaving 1964-65 Teaching Positions: by Type of Certificate Held[a]

	Type of Certificate					
	Professional		Provisional		Total	
	No.	%	No.	%	No.	%
Marriage	94	16.8	13	8.2	107	14.9
Husband Transferred	74	13.2	10	6.3	84	11.7
Family Responsibilities	79	14.1	14	8.9	93	13.0
Left Teaching for Other Work	36	6.4	21	13.3	57	7.9
Returned to College	22	3.9	21	13.3	43	6.0
Military Service	14	2.5	4	2.5	18	2.5
Not Reappointed	39	7.0	13	8.2	52	7.2
Other[b]	83	14.8	26	16.5	109	15.2
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Column Totals	560	100.0	158	100.0	718	100.0

[a] Reasons were provided by personnel officers, curriculum directors and other staff personnel or (for Atlanta System) as recorded on official minutes of the Board of Education.

[b] Includes primarily four groups: those who left because (1) inadequate salary; (2) those who left to be nearer their homes; (3) those who left to travel or to try new experiences, such as teaching abroad; and (4) those who were unhappy teaching.

Table 10

System Expression of Desirability of Having Teacher Return: September 1964 Beginning Teachers who Quit after One Year of Teaching[a]

	Type of Certificate					
	Professional		Provisional		Total	
	No.	%	No.	%	No.	%
Yes	294	57.8	75	50.0	36	56.0
Maybe	52	10.2	22	14.7	7	11.2
No	73	14.3	27	18.0	10	15.2
No Response	90	17.7	26	17.3	11	17.6
Column Totals	509	100.0	150	100.0	65	100.0

[a] Does not include Atlanta System; represents 139 of the 184 systems reporting one or more beginning teachers in September 1964.

system personnel indicated more positive attitudes toward having professionally certified teachers return to teach than they did toward having provisionally certified teachers return.

Summary of Responses to the TAS of Teachers Who Left Teaching After One Year

The responses of 392 teachers in the longitudinal study who withdrew after one year of teaching in Georgia were analyzed statistically to determine factors associated with early withdrawal from the profession. Booth (1966) secured responses of these teachers to the Teaching Appraisal Schedule (TAS) and compared them with ten selected independent variables related to autobiographical data of the teachers.

The TAS consists of 73 statements which represent eleven factors or broad areas of interest relating to satisfaction or dissatisfaction in teaching. These factors are:

I. Teaching as a Career for Loved Ones
II. Faith in People
III. Self and Teaching
IV. Working with Students
V. Views of Students
VI. Attitudes toward Own Preparation
VII. Attitudes toward Parents
VIII. Community and Community Acceptance
IX. School System
X. Other Instructional Staff Members
XI. The Principal

The ten independent variables selected by Booth for comparison with the eleven TAS factors are: (a) sex, (b) age, (c) educational level of father, (d) educational level of mother, (e) type of Georgia certificate, (f) level of teaching assignment, (g) size school system in which taught, (h) reason quit teaching, (i) present employment (now teaching), and (j) plans to teach again.

The instructions of the computer program (BMD02S) were to calculate the chi-square values from original categories and, in instances where expected frequencies within any single cell were less than 5, to collapse adjacent categories and recompute the chi-square from these collapsed-cell frequencies. In a few instances, this process revealed significant relationships obscured by the original frequencies. These instances are mentioned in the discussion as they arise.

A summary of significant chi-square contingency tests is presented in Table 11. This table indicates that there were 22 statistically significant relationships between the TAS factors and the independent variables at the .05, .01, or .001 level of confidence. Descriptions of these relationships are presented below. Where relationships were very strong, such as .01 or .001 levels, this fact is noted in parentheses as (.01) or (.001); all other significant relationships were at the .05 level.

I. Attitude Toward Teaching as a Career for Loved Ones. Three independent variables were determined to be significant when related to the TAS Factor I, attitudes toward teaching as a career for loved ones. These variables were: (1) age (.001), (2) type of certificate (.01), and (3) plans to teach again (.001). Teachers in the age group 35-39 responded significantly less favorably toward teaching for loved ones than did those in the age group 40-44. Collapsed categories, however, indicated that the younger teachers showed less favorable attitudes toward this TAS factor than did those above 34 years of age. Those teachers who hold provisional teaching certificates expressed very unfavorable attitudes toward TAS [illegible] to the attitudes expressed by the professional certificate holders. Of the 392 persons in the sample, 284 responded that they plan to teach again. However, the former Georgia teachers who do not plan to teach again expressed significantly less favorable attitudes toward teaching careers for those whom they love than did those who plan to teach again.

II. Faith in People. This TAS factor was significantly related to four of the independent variables: (1) age (.001), (2) father's education, (3) type of certificate, and (4) size of school system. Teachers in age group 30-34 showed significantly greater faith in people than expected while those in age group 45-49 responded with significantly less faith in people than expected. A larger percentage of teachers whose fathers had completed high school or college responded with more faith in people than did those whose fathers had completed only the eighth grade

Table 11

Summary of Significant Chi-Square Contingency Tests for Responses to Teaching Appraisal Schedule Factors and Independent Variables for Teachers Withdrawing after One Year of Teaching[a]

	TAS Factor	Independent Variable	df	Chi Square
I.	Attitudes Toward Teaching as a Career for Loved Ones	Age	24	75.02***
		Type of Certificate	16	34.61**
		Plans to Teach Again	8	30.33***
II.	Faith in People	Age	24	84.16***
		Father's Education	12	23.01*
		Type of Certificate	16	29.11*
		Size of School System	8	17.34*
III.	Attitudes Toward Self and Teaching	Mother's Education	12	23.27*
		Reason for Leaving Teaching	16	51.82***
		Now Teaching	4	13.03*
		Plans to Teach Again	8	31.74***
V.	Views of Students	Level of Teaching	28	55.25**
		Plans to Teach Again	8	19.09*
VI.	Attitudes Toward One's Own Preparation as a Teacher	Sex	4	12.48*
		Size of School System	8	19.76*
		Plans to Teach Again	8	15.98*
VII.	Attitudes Toward Parents	Reason Quit Teaching	16	29.73*
VIII.	Attitudes Toward Community and Community	Sex	4	7.29**
		Size of School System	8	[illegible]
IX.	Attitudes Toward School System	Now Teaching	4	14.35**
		Plans to Teach Again	8	21.16***
XI.	Attitudes Toward Principal	Plans to Teach Again	8	17.03*
	Total TAS	Size of School System	8	17.42*
		Reason Quit Teaching	16	35.20**
		Plans to Teach Again	8	31.18***

The number of responding teachers was 392.

*Significant at .05 level; **Significant at .01 level

***Significant at .001 level.

[a] From Booth, F. S. Factors Associated with Early Withdrawal of Teachers from the Profession in Georgia, Ed.D. dissertation, University of Georgia, 1966.

[b] Factors IV (Working with Students) and X (Other Instructional Staff Members), were not significantly related to any of the independent variables.

or less. Teachers who hold professional certificates expressed more faith in people than did the provisional certificate holders. Those teachers who hold T-5 certificates expressed significantly greater faith in people than did any other certificate group. The teachers in systems of fewer than 3,000 students expressed less faith in people than those teachers in larger sized school systems.

III. Attitudes Toward Self and Teaching. Four independent variables were determined to be significantly related to TAS Factor III: (a) mother's education, (b) reason for leaving teaching (.001), (c) now teaching, and (d) plans to teach again (.001). Analysis of responses to this factor revealed that those teachers whose mothers had completed only high school held most favorable attitudes toward self and teaching. Teachers who left the teaching positions because they changed professions expressed significantly less favorable attitudes toward self and teaching than did the teachers who left for any other reason. Teachers who are now teaching in another state expressed significantly more favorable attitudes toward themselves and teaching than did those who are not now employed as teachers. The persons who do not plan to teach again expressed less favorable attitudes toward themselves and teaching than did the persons who plan to teach again. Of the total of 20 persons expressing any degree of unfavorable attitudes toward themselves and teaching, 17 definitely do not plan to teach again. Of those who plan to teach again, 82.4 per cent indicated favorable attitudes toward themselves and teaching.

IV. Working with Students. This factor was not related significantly to any of the selected variables in the original categories and is not included in Table 11, however, when the categories were collapsed a significant difference was indicated with the age variable. Teachers in the age group 30-34 indicated more favorable attitudes toward working with students than those in any of the other age groupings. Also, when categories were collapsed, the teachers who do not plan to teach again expressed the least favorable attitudes toward working with students.

V. Views of Students. Two independent variables were related significantly to this TAS factor. These variables were level of teaching (.01), and plans to teach again. Teachers who taught in grades 7-12 expressed significantly less favorable views of students when compared with the teachers who taught in grades 1-6. Former teachers who do not plan to teach again viewed the students with the least favorable attitudes. This difference significant at .05 level in the original categories was significant at the .01 level when the categories were collapsed.

VI. Attitudes Toward One's Own Preparation as a Teacher. Significant differences were found to exist between this TAS factor and three independent variables: sex, size of school system, and plans to teach again. Male teachers expressed significantly more favorable attitudes toward their preparation as teachers than did female teachers. Teachers in the medium-sized systems expressed more favorable attitudes toward their own preparation as teachers than did those in either the large or the small systems. The teachers who definitely plan to teach again and the ones who are undecided about teaching again expressed significantly more favorable attitudes toward their preparation than did those who do not plan to teach again.

VII. Attitudes Toward Parents. Only one of the ten selected independent variables was related significantly to this TAS factor. Teachers who left the teaching positions because they changed professions expressed unfavorable attitudes toward the parents of students more often than did the ones who left the positions because of maternity or because the family moved.

VIII. Attitudes Toward Community and Community Acceptance. Sex and size of school system were each related significantly (.01), to TAS Factor VIII. Male teachers expressed significantly more favorable attitudes toward the community and community acceptance than did the female teachers. Teachers in systems of fewer than 3,000 students felt significantly less favorable toward the community and community acceptance than did those teachers in the medium and large systems.

IX. Attitudes Toward School System. Two independent variables, now teaching (.01), and plans to teach again (.001), were related to attitudes toward the school system. Of the former teachers, 15.1 per cent of those who are now teaching expressed very favorable attitudes toward the school system while only 5.8 per cent of those not now teaching expressed very favorable attitudes toward the school system in which they had taught. A very strong relationship was found between the respondent's decision about teaching again and the attitudes he has toward the school system which employed him. Of the former teachers who are undecided about teaching again, 34.6 per cent expressed unfavorable attitudes toward the school systems and 26.9 per cent expressed favorable attitudes toward the school systems which had employed them.

X. Other Instructional Staff Members. This TAS factor was not related significantly to any of the selected variables and is not included in Table 11.

XI. Attitudes Toward Principal. One independent variable, plans to teach again, was related to teachers' attitudes toward the principal of the school in which they had been employed. The group which responded that they would teach again showed the most favorable attitude toward the principal, and the group which was undecided as to teaching again showed the least favorable attitude toward the principal. Favorable attitudes were expressed by 59.5 per cent of those who responded "Yes;" by 46.9 per cent of those who responded "No;" and by 42.3 per cent of those who responded "Maybe". Unfavorable attitudes toward the principal were expressed by 15.9 per cent of those who definitely plan to teach again, by 25.9 per cent of those who responded that they would not teach again, and by 38.4 per cent of those who are undecided about teaching again.

Responses to the Total TAS. Three of the independent variables were related significantly to the total TAS Scores: size of school system, reason to quit teaching (.01), and plans to teach again (.001). The teachers in small systems expressed less favorable attitudes toward teaching as measured by the TAS than did those in either the medium or the large systems. The attitudes of those in large systems were more favorable than those in medium sized systems thus indicating a possible relationship between the size of the system and the teachers' attitudes toward teaching as a career. Teachers who left teaching positions because they changed professions expressed less favorable attitudes toward teaching as measured by the total TAS more often than any other group who left the teaching profession. The conceptual hypothesis of the study, that the TAS would differentiate subgroups of teachers and that those leaving the profession would respond differently from those remaining in the profession, was substantiated. The differences were shown to be extremely significant. The expected percentage of those responding in an unfavorable manner was far greater than those who actually responded with unfavorable attitudes for those who plan to teach again, and the favorable responses expectation was far less than the observed. The reverse was true for each of the other two groups. A greater percentage responded unfavorably than expected among those teachers who definitely do not plan to teach again and among those who are undecided as to teaching again.

Summary. The descriptions of Table 11 have shown that all independent variables were related significantly to one or more of the TAS factors. Likewise, this table has shown that two TAS factors, working with students and other instructional staff members, were not significantly related to any of the independent variables.

Responses to Open-Ended Questions. In addition to responding to the 73 statements of TAS, former Georgia teachers who withdrew after one year of teaching responded to two open-ended questions. These questions follow:

1. "Were there any problems you encountered as a teacher that were not covered in the 73 statements?"
2. "What suggestions do you have for making teaching in Georgia a more attractive career?"

In the 137 responses to the first question, 16 problem areas were identified. Representative responses at the extremes ranged from: "Absolutely none. I can hardly wait to get back to Georgia to teach!"

to: "Any and all that you can think of; after my experiences, I'll never teach anything again, not even Sunday school." Among the 16 problem areas in order of decreasing frequency of mention were the following:

Lack of professional attitudes among administrators and experienced teachers	29
Inadequate facilities and services	18
Overcrowded classes	16
Need for more adequate provision for individual pupils	14

Menial tasks, poorly planned in-service programs and lack of freedom to teach were other expressed concerns.

The responses to the second question were more varied and more numerous than to the first question. There were 701 suggestions indicating 29 areas for making teaching a more attractive career. In order of decreasing magnitude, the categories of suggestions included:

Salaries should be raised	179
Professional standards and status should be improved (Raise standards, develop professional ethics, 39; require higher standards to enter teaching, 30; Improve public image of teachers, 23).	102
Improve facilities and equipment	61
Exercise more care in selection of principals	36

Other suggestions, ranging in frequency [illegible] include decreasing class size, eliminating non-teaching chores, improving teacher education programs at pre-service and in-service levels, improving school policies relating to sick leave, length of school day, social freedom and holidays.

Approximately 3% of the respondents wrote letters or attached additional sheets to the questionnaire in order to write more fully their suggestions or to explain their attitudes. Some letters indicated extreme dissatisfactions while others indicated satisfactions.

Factors Related to Retention of Beginning Teachers in Georgia

The responses of 420 teachers to the Revised Teaching Appraisal Schedule and Biographical Information Questionnaire were analyzed statistically to determine factors related to retention of beginning teachers in Georgia. Trull (1967) determined the effect of 22 selected characteristi on the extent of expressed satisfaction with eleven dimensions of the teaching environment as defined by Booth (1966, p. 50).

The eleven areas of the Revised Teaching Appraisal Schedule are:

I. Teaching as a Career for Loved Ones
II. Faith in People
III. Self and Teaching
IV. Working with Students
V. Views of Students
VI. Attitudes Toward One's Own Preparation as a Teacher
VII. Attitudes Toward Parents
VIII. Community and Community Acceptance
IX. School System
X. Other Instructional Staff Members
XI. Attitudes Toward Principal

The specific null hypotheses were that groups of teachers having different perceptions of their teaching environment would not be differentiated on the basis of the autobiographical characteristics of (1) sex, (2) marital status, (3) age, (4) enrollment of high school, (5) type of high school, (6) service in armed forces, (7) presence of pre-teaching experience, (8) kind of pre-teaching experience, (9) education of father, (10) education of mother, (11) type of college attended, (12) enrollment of college attended, (13) number of hours since graduation, (14) purpose of course work completed since graduation, (15) area of course work completed since graduation, (16) projected reason for returning to college, (17) level of teaching, (18) subject taught, (19) satisfaction with current year of teaching, (20) number of years to teach before withdrawing, (21) relative size of system where presently employed, and (22) projected cause for discontinuing teaching.

Each hypothesis was rejected when the level of significance of the chi-square test was equal to or exceeded the .05 level of significance. Chi-square values were computed by the IBM 7094 computer at the University of Georgia Computer Center using the BMD02S computer program. Instructions to the computer included directions that when the expected-cell frequencies were smaller than five, the adjacent categories were to be collapsed. When the categories were collapsed, the chi-square values were computed again. When this method produced a change with regard to the decision of rejecting or accepting the null hypothesis, mention of this has been made and its possible importance is discussed.

Table 12 presents a summary of chi-square contingency tests for responses to RTAS factors and independent variables for teachers remaining for at least three years in teaching. An examination of Table 12 reveals 38 statistically significant relationships between the RTAS factors and the independent variables at the .001, .01, or .05 level of confidence. Descriptions of these relationships are presented below. Where a relationship was very strong such as .01 or .001 levels, this relationship is noted by the use of parentheses as (.01) or (.001). All other significant relationships were at the .05 level.

It will be noted from Table 12 that no significant relationships existed between the RTAS factor, attitudes toward principal, and any one of the 22 independent variables. Collapsing of the categories produced four significant relationships. These relationships are described at a later point in this section.

Table 12 also reveals that no significant relationships existed between any dimension of the RTAS and six independent variables on the uncollapsed contingency table. These six independent variables were: (1) type of high school attended, (2) service in armed forces, (3) type of college attended, (4) size of college attended, (5) area of course work completed since graduation, and (6) relative size of system where presently employed. Collapsing of the categories yielded four significant relationships of these variables to RTAS factors. These relationships will be discussed later in this section of the report.

I. Attitudes Toward Teaching as a Career for Loved Ones. Five independent variables were found to be significant when related to RTAS Factor I. These variables were (1) age (.01), (2) pre-teaching experience (.01), (3) mother's education, (4) satisfaction with current year of teaching, and (5) projected reason for leaving teaching.

The group of teachers between ages 40 and 49 tended to have more favorable attitudes toward teaching as a career for loved ones than did

Table 12

Summary of Significant Chi-Square Contingency Tests for Responses to Revised Teaching Appraisal Schedule Factors and Independent Variables for Teachers Remaining for at Least Three Years in Teaching[a]

RTAS Factor[b]		Independent Variable	df	Chi-Square
I.	Attitudes Toward Teaching as a Career for Loved Ones	Age	12	27.76**
		Pre-Teaching Experience	4	12.00**
		Mother's Education	16	30.09*
		Satisfaction with Current Year of Teaching	8	17.72*
		Projected Reason for Leaving Teaching	36	56.35*
II.	Faith in People	Pre-Teaching Experience	4	11.26*
		Projected Reason for Leaving Teaching	36	73.13**
III.	Attitudes Toward Self and Teaching	Mother's Education	16	28.64*
		Reason for Returning for Further Study	16	36.51**
		Satisfaction with Current Year of Teaching	8	45.11***
		Additional Years Planned To Teach	16	65.12***
		Projected Reason for Leaving Teaching	36	105.55**
IV.	Attitudes Toward Working with Students	Sex	4	13.93**
		Enrollment of High School Attended	8	16.75*
		Kind of Pre-Teaching Experience	16	28.54*
		Purpose of Advanced Study	16	27.58*
		Projected Reason for Returning for Study	16	33.74**
		Father's Education	16	26.82*
		Satisfaction with Current Year of Teaching	8	18.90*
V.	Views of Students	Teaching Level	12	33.15***
VI.	Attitudes Toward One's Own Preparation as a Teacher	Marital Status	8	17.01*
		Additional Years Planned To Teach	16	34.44**

Table 12 (Continued)

RTAS Factor	Independent Variable	df	Chi-Square[a]
VII. Attitudes Toward Parents	Age	12	30.1**
	Pre-Teaching Experience	4	11.4*
	Area of Teaching	52	70.1*
	Projected Reason for Leaving Teaching	36	60.**
VIII. Attitudes Toward Community and Community Acceptance	Sex	4	13.2*
	Age	12	23.2*
	Marital Status	8	15.8*
	Satisfaction with Current Year of Teaching	8	22.**
	Projected Reason for Leaving Teaching	36	50.*
IX. Attitudes Toward School System	Enrollment of High School Attended	8	17.*
	Father's Education	16	29.*
	Teaching Level	12	23.*
	Satisfaction with Current Year of Teaching	8	36.***
	Additional Years Planned To Teach	16	28.*
	Projected Reason for Leaving Teaching	36	63.**
X. Attitudes Toward Other Instructional Staff Members	Quarter Hours Earned Since Beginning Teaching	20	38.**
Total RTAS	Sex	4	9.*
	Age	12	21.*
	Projected Reason for Returning for Study	16	29.*
	Teaching Level	12	21.*
	Satisfaction with Current Year of Teaching	8	47.***
	Additional Years Planned To Teach	16	28.*
	Projected Reason for Leaving Teaching	36	50.**

The number of responding teachers was 420.

*Significant at .05 level.

**Significant at .01 level.

***Significant at .001 level.

[a] From J. R. Trull, Factors Related to Retention of Beginning Teachers in Georgia. Ed.D. dissertation, University of Georgia, 1967.

[b] Factor XI was not significantly related to any of the independent variables (in the original categories).

teachers at other age groups. The groups composed of teachers below 30 and between 30 and 39 tended to have less favorable attitudes. Those teachers who had pre-teaching experiences were found to have significantly better attitudes toward teaching as a career for loved ones than did those who had had no such experiences. Teachers whose mothers had terminated their education at graduation from high school tended to express favorable attitudes toward teaching as a career for loved ones to a greater extent than did the other groups. Teachers whose mothers had attended but not graduated from college tended to have the next best attitudes toward teaching as a career for loved ones. Teachers whose mothers had terminated their education after the eighth grade but prior to graduation from high school tended to have less desirable attitudes toward teaching as a career for loved ones than any other group.

Those teachers who considered their present teaching experience more satisfying than their past experience tended to have somewhat more favorable reactions to the concept of teaching as a career for loved ones. The group which felt that their present experiences were less satisfying than their past experience had poorer attitudes toward teaching as a career for loved ones.

Those teachers whose projected reason for leaving teaching was maternity had the most favorable attitude toward teaching as a career for loved ones. Those who would end their career because of the family moving had somewhat less favorable attitude toward teaching as a career for loved ones.

II. Faith in People. This *RTAS* factor was related to two of the independent variables: pre-teaching experience and projected reason for leaving teaching (.01). Teachers who had had pre-teaching experiences had significantly greater faith in people than those who had had no pre-teaching experiences. Those teachers whose projected reason for leaving teaching was maternity tended to have greater faith in people. Those who would quit teaching to enter another profession had the least faith in people.

III. Attitudes Toward Self and Teaching. Five independent variables were determined to be significantly related to *RTAS* Factor III: (1) mother's education, (2) reason for returning for further study (.01), (3) satisfaction with current year of teaching (.001), (4) additional years planned to teach (.001), and (5) projected reason for leaving teaching (.01).

Those teachers whose mothers had terminated their education below the ninth grade had the most favorable attitudes toward self and teaching. Teachers whose mothers had ended their education between the ninth grade and high school graduation had the next best attitudes toward self and teaching. Teachers whose mothers had ended their formal education with graduation from high school had the poorest attitude toward self and teaching.

The group of teachers who felt that "to increase professional competence" would be the reason which would cause them to return to college had the most favorable attitudes toward self and teaching. Teachers who felt that their present experiences were more satisfying than their previous years of teaching tended to have better attitudes toward self and teaching.

The teachers who stated that they would teach for 20 or more years had the most favorable attitudes toward self and teaching. The teachers who planned to end their careers at the end of the current year had the least favorable attitudes toward self and teaching. Those teachers whose expressed reason for withdrawing was to obtain further education tended to have the most favorable attitudes toward self and teaching, while those who would leave to enter another profession tended to have the least favorable attitudes.

IV. Attitudes Toward Working With Students. Seven independent variables were related significantly to this *RTAS* factor. These variables were (1) sex (.01), (2) enrollment of high school attended, (3) kind of pre-teaching experience, (4) purpose of advanced study, (5) projected reason for returning for study (.01), (6) father's education, and (7) satisfaction with current year of teaching.

Female teachers were found to have significantly more favorable attitudes toward working with students than did male teachers. Teachers who, as students, had attended high schools with 1,000 + enrollment tended to have less favorable attitudes toward working with students than did teachers from high schools of other sizes. People who had assisted teachers or had done substitute teaching expressed significantly better attitudes toward working with students than did the other groups.

Those people who stated their purpose in pursuing advanced training was to increase their professional competence had more favorable attitudes toward working with students than did the other groups. Those teachers who considered that their primary purpose in earning academic credits was "to maintain their certificates", had the second most favorable attitudes toward working with students. The group having the poorest attitudes toward working with students was the group who stated that their purpose in seeking advanced education was "to prepare for a position outside education".

The group who felt that the most effective factor in causing them to return to college was a need "to increase professional competence" had the most favorable attitudes toward working with students. The group having the least favorable attitudes toward working with students felt that the factor which would be most effective in causing them to return to college would be "to prepare for another profession".

Teachers whose fathers had terminated their education below the ninth grade of public school expressed significantly more favorable attitudes toward working with students than did the other group. The teacher group which expressed the next most satisfactory attitudes toward working with students were those whose fathers had attended, but not graduated, from college. Teachers whose fathers had graduated from high school but had not gone to college had the poorest attitudes toward working with students.

Teachers expressing greater satisfaction with their current teaching experiences had the most favorable attitudes toward working with students.

The group of teachers that thought that their current experiences were less satisfying than their past experiences had the poorest attitudes toward working with students.

V. Views of Students. A very strong relationship (.001), was found between the independent variable level taught and the RTAS dimension views of students. Those teachers who taught at the elementary level had the most favorable views of students. The group having the next best attitudes was the group of teachers who taught at the primary level. The groups reporting the least favorable views of students were teaching at the junior high or high school level.

VI. Attitudes Toward One's Own Preparation as a Teacher. Married teachers tended to have more favorable attitudes toward preparation than other teacher groups. A strong relationship (.01) was found between the number of additional years the teacher planned to remain in the profession and the teacher's attitudes toward his own preparation. Those who planned to remain in teaching for the longest period of time had the most favorable attitudes toward their preparation.

VII. Attitudes Toward Parents. The variables age (.01), pre-teaching experience, area of teaching, and projected reason for leaving teaching (.01), were found to be related to the RTAS dimension attitudes toward parents. Teachers between 40 and 49 were found to have more favorable attitudes toward parents than did the other groups. Teachers who indicated that they had had formative pre-teaching experiences were found to have more favorable attitudes toward parents. Teachers of English tended to have the most positive attitudes toward parents. Teachers of mathematics and foreign languages seemed to be in second and third positions in favorableness of attitudes toward parents. Non-business vocational teachers appeared to have the least positive attitudes toward parents. Teachers who felt that the reason which would cause them to discontinue teaching was maternity had more favorable attitudes toward parents. Those having the least favorable attitudes would leave to enter another profession.

Attitudes Toward Community and Community Acceptance. Significant differences were found to exist between this *RTAS* factor and five independent variables: (1) sex, (2) age, (3) marital status, (4) satisfaction with current year of teaching (.01), and (5) projected reason for leaving teaching.

Male teachers were found to have significantly poorer attitudes toward the community and community acceptance than did female teachers. The group of teachers with ages between 40 and 49 had more favorable attitudes than the other groups. Teachers whose ages were below 30 had less favorable attitudes toward the community and community acceptance than did the other groups. Single people were found to have significantly less favorable attitudes toward the community and community acceptance than did the "married" or "other" categories.

Teachers who expressed greater satisfaction in their current teaching tended to have better attitudes toward the community and community acceptance. The teachers who felt that their current experiences were less satisfying than their past experiences had the least favorable attitudes toward the community and community acceptance. The group who would leave to continue their education tended to have the most favorable attitudes toward the community and community acceptance.

IX. Attitudes Toward School System. This *RTAS* factor was significantly related to six independent variables: (1) enrollment of high school attended, (2) father's education, (3) teaching level, (4) satisfaction with current year of teaching (.001), (5) additional years planned to teach, and (6) projected reason for leaving teaching (.01).

Both groups of teachers who had attended schools with more than 500 enrollment tended to express more unfavorable attitudes than teachers from smaller schools. Teachers whose fathers had not graduated from high school, but had had more than nine years of education, tended to have more favorable attitudes toward the school system. Those whose fathers had graduated from college tended to have the next most desirable attitudes. The teacher group having the least favorable attitudes toward the school system was the group whose fathers had graduated from high school but had not gone further in their education.

Teachers at the elementary level expressed the most favorable attitudes toward their school system. Primary teachers expressed the second most favorable attitudes toward school system. The teachers who taught at the junior high level expressed the least favorable attitudes toward school system, although there were only slight differences in the reactions of the junior high and high school group.

Teachers who felt that their current year of teaching was more satisfying than their previous ones tended to have more favorable attitudes toward school system. Those who planned to teach 6 to 10 years had the most favorable attitudes toward the school system. Those who planned to end their career at the end of the current year had the least favorable attitudes toward the school system. Those who would leave teaching because of the family moving tended to have the most favorable attitudes toward the school system. Those who would leave to enter another profession had the least favorable attitudes toward the school system.

X. Attitudes Toward Other Instructional Staff Members. The relationship between the independent variable number of quarter hours earned and the RTAS factor had statistical significance. The group of teachers who had earned 30 or more hours of college credit since beginning their teaching career had the most favorable attitudes toward other members of the staff. The group which earned from 21 to 30 hours of academic credit had the next most desirable attitudes toward other members of the staff. The teacher group who had earned from 5 to 10 hours of academic credit had the least desirable attitudes toward the other members of the staff.

XI. Attitudes Toward Principal. No significant relationships existed between the RTAS factor attitudes toward the principal and any one of the 22 independent variables. Therefore this RTAS factor is not included in Table 12. Collapsing of the categories produced four significant relationships. With the collapsed format, the variables projected reason for leaving teaching, type of high school attended, satisfaction with the current year's teaching experience and additional years planned to teach, were shown to be related to the teacher's attitudes toward the principal.

Those who would leave for further education had the most favorable attitudes toward the principal. The people who would leave to seek another position had the least favorable attitudes toward the principal. Teachers from urban and metropolitan schools had significantly better attitudes toward their principals than did teachers who had attended rural schools. The teachers having better attitudes toward the principal tended to feel that the current year was more satisfying than the previous one. Those teachers who planned to teach for an additional 10 to 15 years expressed the most favorable attitudes toward the principal.

Responses to Total _RTAS_. Seven independent variables distinguished among the groups of teachers expressing different attitudes toward the aspects of their school environment as measured by the total _RTAS_. The variables were: (1) sex, (2) age, (3) projected reason for returning for study, (4) teaching level, (5) satisfaction with current year of teaching (.001), (6) additional years planned to teach, and (7) projected reason for leaving teaching (.01).

Women teachers were found to have attitudes significantly better than the men. Teachers older than 39 tended to have more favorable attitudes toward their teaching experiences than did younger teachers. The group designating the category "to increase professional competence" as the factor most effective in causing them to return to college had the most favorable reaction to the dimensions of the total _RTAS_. The group having the next most favorable total reaction was the group who felt that "to upgrade their certificate" would be most effective in causing them to return to college. The group having the least favorable attitudes as measured by the total instrument felt that the most effective factor in causing them to return to college would be "to prepare for a position outside education". Elementary teachers expressed the most favorable attitudes toward these aspects of their teaching situations and primary teachers expressed the second most favorable attitudes toward teaching. Junior high school teachers expressed the poorest attitudes toward these dimensions of teaching. The distribution of responses among the high school teachers showed significant numbers expressing attitudes on both extremes of the response scale. The primary teachers expressed more favorable attitudes toward their own teaching than did any other group. Junior high school teachers expressed the least favorable attitudes toward self and teaching.

The current satisfaction of the teacher was found to be strongly related (.001) to the teachers' attitudes as they were expressed on the total instrument. The teachers who felt that their current year of teaching was more satisfactory than their previous ones tended to have higher satisfaction scores on the RTAS.

The responses to the total instrument were significantly related to the reported additional number of years the teacher planned to teach. The group of teachers who planned to teach from 10 to 20 years possessed the most favorable attitudes toward the total dimensions of the RTAS. The group who would leave to seek further education had the most favorable attitudes toward the dimensions of the total instrument.

Significant Relationships on Collapsed Categories. Table 12 indicated that no significant relationships existed between any dimension of the RTAS factors and six of the independent variables on the original contingency table. The six independent variables were (1) type of high school attended, (2) service in armed forces, (3) type of college attended, (4) size of college attended, (5) area of course work completed since graduation, and (6) relative size of system where presently employed. Collapsing of the categories produced two significant relationships between the type of high school and attitudes of teachers. The first of these was the relationships (.01) between attitudes toward working with students and type of high school attended. Teachers who had attended metropolitan or urban schools had significantly poorer attitudes toward working with students than those who had attended rural schools. The attitudes toward the principal were found, in the collapsed categories, to be related to the type of high school attended. Teachers from urban and metropolitan schools had significantly better attitudes toward their principals than did teachers who had attended rural schools.

In the original categories, no significant relationships were found between the type of college attended and the RTAS dimensions. Collapsing the categories produced two significant relationships. Teachers who received their bachelor's degree from either a state or private university showed greater faith in people than did those teachers who received their bachelor's degrees from state or private colleges. The second significant relationship was found between the type of college granting the teacher a bachelor's degree and the teachers' attitudes toward parents. Teachers who graduated from either a private or state university tended to have better attitudes toward parents than did the teachers who had attended state or private colleges.

After collapsing response categories, the other four independent variables (service in armed forces, size of college attended, area of advanced study, and size of current school system) failed to differentiate among subgroups of teachers having different attitudes toward dimensions of the RTAS.

Responses to the Open-ended Questions. The RTAS instrument contained two open-ended questions. These questions were:

1. "Are there any problems you have encountered as a teacher that are not covered in the 73 statements? If so, please list them below."
2. "What suggestions do you have for making teaching in Georgia a more attractive career?"

The original plan of the study was to list the responses separately; however the respondents seemed to perceive the statements in ways that resulted in a very large amount of overlapping occurring in their responses. Since both statements ask, in effect, for ways of improving teaching, the responses to both questions were combined.

The 229 statements given by the 283 respondents in the sample were categorized into 12 broad areas. The broad areas, ordered by frequency, are presented below in order of decreasing frequency.

1. Teachers' Salaries (191). Suggestions included increase salaries to compare with those of other professionals or with the national average to encourage younger teachers to remain in teaching if salaries were large enough to support them and their families.

2. Administration and Supervision (64). Reduce the size of classes, provide more demonstrations and materials to teacher, better curriculum planning, improved school organization, better planned and more productive faculty meetings and more help from supervisors were among the 64 suggestions offered.

3. Relationships with the Principal (61). Representative statements were "Principal is unfair and excessively critical." "The principal is a poor administrator," and "Principal emphasizes non-teaching and non-learning".

4. Expectations and Assignments (38). These statements reflected that teachers do too much clerical work, teachers need some time to be away from pupils during the school day, and that non-teaching duties are excessive.

5. Materials and Personnel Needs of Schools (36). Suggestions cited the need for more modern buildings, language laboratories, more men teachers in the elementary school and the need for specialists in the elementary school.

6. Professional Status of Teachers (32). These 32 statements included such statements as "The professional status of teachers should be enhanced", "A teacher deserves and needs an improved stature in the community", and "Teachers need more freedom to experiment and to develop their methods of teaching".

7. Teacher Education (20). Respondents suggested that more teachers should be able to secure help for advanced study, receive leaves of absences for further study, attend in-service meetings for certification purposes and specific help in teacher training in such areas as discipline, teaching the disadvantaged, slow learner and in the evaluation of learning.

8. Board of Education and Schools (15). Suggestions included consolidation of smaller schools, a shorter school day, and the need for informed board members on newer trends in education.

9. Relationships With Other Teachers and School Personnel (14). Sample comments in the category were: "Other teachers are poor, they should not be in teaching", "Experienced teachers are unfair", and "People who have only emergency certificates should not teach".

10. Attitudes Toward Parents (13). "Parents are not concerned about their children's educational wellbeing", and "Parents exert undue influence on the principal, the school and the central administration" were representative statements in this category.

11. Relationships to Pupils (11). Problems of undisciplined pupils and pupils with poor home training were cited.

12. Miscellaneous Comments (4). The need for improved daily attendance, desire to teach in major field and better Future Teachers programs were mentioned.

The most frequently given responses were the need to increase the salary, the need for more effective administration, the need to reduce the amount of required paper work, the need of teachers for more materials and better facilities, comments about the professional status of teachers, and suggestions about teacher training.

Factor Analysis of Teaching Appraisal Schedule and Revised Teaching Appraisal Schedule

Responses from the 392 teachers withdrawing after one year of teaching (Sample 1) to the 73 items of the Teaching Appraisal Schedule (Booth, 1966) were factor analyzed by use of the BMD03M Program (Dixon, 1965). A similar analysis was performed of the responses of 428 remaining teachers (Sample 2) to the Revised Teaching Appraisal Schedule (Trull, 1967). Since the instruments were essentially the same, the only difference being the tense of the verbs used in the items (past tense for Sample 1; present tense for Sample 2), it was possible to compare the results of the two analyses for the separate samples to the same instrument. The BMD03M program performs a principal component solution and an orthogonal rotation of the factor matrix. Thirteen interaction cycles were performed in each analysis and 21 factors identified.

The TAS and the RTAS identified 11 areas which discriminated in the pilot studies those teachers who were most or least satisfied with teaching. In addition, three items, two of which concerned salary (Items 63 and 64) and one of which (Item 73) concerned an interest in teaching again, were included because of their intrinsic value. These areas and the associated items are listed below with the highest factor loading and the factor number for each of the two samples. (In two instances (Items 1 and 46), second-highest loadings have been included.)

	Highest Factor Loading and Factor Number			
	Sample 1 Teachers Withdrawing		Sample 2 Teachers Remaining	
Area I. Teaching as a Career for Loved Ones.				
1. If I had a daughter entering college, I would encourage her to become a teacher.	.49	VII	.71	IV
	(.40	XX)		
2. If I had a son entering college, I would encourage him to become a teacher.	.61	XX	.55	IV
3. I would prefer my close personal friends to be from the teaching profession rather than from the business world.	.71	XX	.80	VIII
Area II. Faith in People.				
5. Most people can be trusted.	.56	III	.43	XVII
19. A person can't be too careful in his dealings with other people.	.44	XIII	-.45	XI
27. Human nature is fundamentally cooperative.	.73	XII	.35	VI
30. When you get right down to it, no one really cares what happens to you.	.70	III	.39	XVII
42. If you don't watch yourself, people will take advantage of you.	.70	III	.58	XVII
51. Most people are more inclined to help others than they are to look out for themselves.	.75	XIX	.74	IX
Area III. Self and Teaching.				
4. I would like to teach again.	.79	VII	.66	XIX
7. As a teacher, I had a feeling of self-satisfaction at the end of the day.	.46	VII	.57	XIX
8. As a teacher, I had a feeling of pride in saying that teaching was my profession.	.44	IV	.61	XIX
9. As a teacher, I felt it my duty to participate in professional educational organizations.	.83	VIII	.81	V
10. As a teacher, I felt it a privilege to participate in professional educational organizations.	.80	VIII	.77	V
11. As a teacher, I took pride in my work.	.62	IV	.56	XIX
47. Working with students is a joy.	.60	IV	.61	XIX
48. A teacher should know all of his students' homes and environments.	.67	XXI	.63	XI
60. I found ways of keeping the little problems from "piling-up,"	.38	XVII	.46	XIX

	Highest Factor Loading and Factor Number			
	Sample 1 Teachers Withdrawing		Sample 2 Teachers Remaining	
Area IV. Working with Students.				
12. As a teacher, I had no serious discipline problems.	.61	IV	.75	XII
13. As a teacher, I seldom got upset with the students.	.54	IV	.73	XII
14. As a teacher, I respected each child.	.56	IV	.62	XIV
15. As a teacher, I enjoyed the students.	.73	IV	.58	XIV
16. As a teacher, I encouraged each student to disagree with an author or another person so long as they showed evidence and thought on the issue.	.58	XI	.74	VIII
17. As a teacher, I was not embarrassed to say, "I do not know the answer to that."	.71	XI	.70	VIII
26. Students must be kept at a "proper" distance if the teacher is to maintain discipline.	.70	XIII	.69	XVII
49. Teachers strive to help every child reach his potential.	.36	XI	.45	XIV
50. Most teachers enjoy working with the "slow" learners as well as with the "fast" learners.	.44	XIX	.56	IX
Area V. Views of Students.				
20. Most students are sincere in their efforts to learn.	.70	XV	.66	VI
21. Most students are better scholars than I had expected them to be.	.52	XV	.52	VI
22. Most students respect teachers.	.60	XV	.51	VI
23. All students should pass the work of the grade before they are promoted.	.54	XIII	.49	XVII
24. Most students do a sincere job when they are given a chance to help plan the class work.	.51	XV	.53	VI
25. Most students take pride in the neatness and attractiveness of the school.	.52	XV	.66	VI
Area VI. Attitudes Toward One's Own Preparation.				
18. As a teacher, I felt adequately prepared to understand the students' problems.	.66	XX	.56	II
35. I was adequately prepared to teach the subjects I taught.	.44	II	.71	II

	Highest Factor Loading and Factor Number			
	Sample 1 Teachers Withdrawing		Sample 2 Teachers Remaining	
Area VI. Attitudes Toward One's Own Preparation. (continued)				
36. I was adequately prepared to maintain good discipline in the classroom.	.60	II	.53	II
37. I was adequately prepared to understand the children with whom I worked.	.72	II	.59	II
38. I was adequately prepared to work with the child who had physical handicaps.	.74	II	.78	XIII
39. I was adequately prepared to work with the child who had emotional problems.	.73	II	.71	XIII
40. I was adequately prepared to challenge all of my students.	.51	II	.73	II
41. I was adequately prepared to help students understand current issues of world affairs.	.70	XIV	.56	II
Area VII. Attitudes Toward Parents.				
28. Parents did not expect the school to teach morals as well as subjects.	.82	XVIII	.32	XX
29. Parents were cooperative in school policies.	.50	VI	-.34	XIV
31. Parents taught the children to respect the rights and property of others.	.60	XVII	.44	VI
32. Parents were friendly with me.	.65	VI	.74	XVI
33. Parents allowed me to live my personal life without interference or implications.	.45	VI	.55	XVI
34. Parents wanted their children to learn the school work.	.52	VI	.64	XVI
Area VIII. Attitudes Toward Community and Community Acceptance.				
6. As a teacher, I had many opportunities for social contacts with attractive single adults of the opposite sex.	.50	XIV	.59	XX
43. Teachers are free to function in the political life of the community.	.71	X	.71	III
44. Teachers are free to attend dances and social clubs of the community.	.72	X	.68	III
45. Teachers are granted the same personal freedom as lawyers, doctors, and other professional groups.	.69	X	.59	III
46. The community appreciate teachers and recognizes their worth.	.44 (.33	XVII X)	.49	III

	Highest Factor Loading and Factor Number			
	Sample 1 Teachers Withdrawing		Sample 2 Teachers Remaining	
Area IX. Attitudes Toward School System.				
52. I was pleased with the personnel policies of the school system in which I taught.	.60	I	.60	VII
53. I was pleased with the curricula planning in the school system in which I taught.	.56	XVI	.70	VII
54. I was pleased with the assignment of duties in the school system in which I taught.	.43	I	.64	VII
55. I was pleased with the equipment and resources of the school system in which I taught.	.74	XVI	.60	VII
56. I found the working conditions of the school satisfactory.	.60	XVI	.58	VII
57. I would like to teach in that school again.	.49	I	.48	VII
Area X. Attitude Toward Other School Personnel.				
58. I found the experienced teachers very friendly.	.82	V	.71	XXI
59. I received much help from the experienced teachers.	.86	V	.80	XXI
72. The supervisory personnel helped me.	.40	V	.55	XX
Area XI. Attitude Toward the Principal.				
61. The principal wanted my ideas for improving the school.	.70	I	.68	XV
62. The principal used my ideas for improving the school.	.61	I	.72	XV
65. The principal was a good leader.	.82	I	.80	I
66. The principal was considerate of my personal needs.	.82	I	.78	I
67. The principal was always courteous to the teachers.	.82	I	.81	I
68. The principal was always courteous to the pupils.	.72	I	.72	I
69. The principal explained fully the policies and expectations of the school.	.70	I	.64	I
70. The principal "backed-up" the teacher in disciplinary problems.	.75	I	.72	I
71. The principal was a democratic leader.	.84	I	.84	I

	Highest Factor Loading and Factor Number			
Independent Items:	Sample 1 Teachers Withdrawing		Sample 2 Teachers Remaining	
(Salary)				
63. The salary for teachers is adequate for the training they have.	-.84	IX	-.85	X
64. The salary for teachers is adequate to give them a high standard of living.	-.86	IX	-.81	X
73. I would like to teach in Georgia again.	.54	VII	.57	XIX

Careful study and logical consideration of the areas established _a priori_ as well as examination of the factor loadings emerging from the two separate factor analyses indicated that 14 of the 21 factors from the two samples were similar. These 14 factors which correspond fairly closely to the 11 factors (12 including the items concerning salary) are presented in Table 13 with the eigenvalues and the percentage of contribution to the total variance for the two separate samples. Factor I clearly related to Area XI of the two _TAS_ instruments, loading highly on all items in this area for both samples. Sample 1 also loaded highly on this factor for items 52, 54, and 57 pertaining to attitudes toward the school system. This factor accounted for approximately 14 and 15 per cent, respectively, of the variance for the two samples.

Factor II in both samples seemed to be "confidence in one's professional preparation." Six of the 8 items for Sample 1 and five for Sample 2 had high factor loadings on Area VI, "Attitudes Toward One's Own Preparation." Factor III in Sample I and Factor XVII in Sample 2 seemed to relate to Area II, "Faith in People" of the _TAS_. Three of 6 items from this area loaded highest for Sample 1 and 2 of 6 (Items 23 and 26) for Sample 2. This factor, however, did not seem quite so clear as the first two factors.

Factor V from Sample 1 and Factor XXI from Sample 2 seemed to be measuring essentially similar properties and has been termed, "Attitudes Toward Other School Personnel," the designation of Area X in the _TAS_.

Table 13

Descriptions of 14 Factors Emerging with Eigenvalues and Percentages of Total Variance Emerging from Factor Analyses of Samples 1 and 2

Sample 1 (392 Withdrawing Teachers) No.	Eigenvalue	Per Cent Variance	Factor Descriptive Title	Sample 2 (428 Remaining Teachers) No.	Eigenvalue	Per Cent Variance
I	9.99	13.7	Attitudes Toward Principal	I	10.64	14.6
II	5.72	7.8	Confidence in One's Preparation	II	4.62	6.3
III	3.28	4.5	Faith in People	XVII	1.15	1.6
V	2.38	3.2	Attitudes Toward Other School Personnel	XXI	1.00	1.4
VI	2.07	2.8	Parent-Teacher Relationships	XVI	1.18	1.6
VIII	1.69	2.3	Relationships with Professional Organizations	V	2.24	1.6
IX	1.65	2.3	Dissatisfaction with Salary	X	1.55	2.1
X	1.63	2.2	Attitudes Toward Community	III	4.07	5.6
XI	1.47	2.0	Encouragement of Critical Thinking by Students	VIII	1.86	2.5
XV	1.25	1.7	Confidence in Students	VI	1.96	2.7
XVI	1.21	1.7	Attitudes Toward School System	VII	1.89	2.6
XIX	1.09	1.5	Altruism	IX	1.63	2.2
XX	1.07	1.5	Teaching as a Career for Loved Ones	IV	2.75	3.8
XXI	1.07	1.4	Knowledge of Students' Background	XI	1.51	2.1

Three items from Sample 1 and two items from Sample 2 loaded highest on this factor. Factor VI from Sample 1 and XVI for Sample 2 have been termed, "Parent-Teacher Relationships" since 4 of the 6 for Sample 1 and 3 of 6 for Sample 2 from Area VII of the TAS loaded highest for this factor. Factor VIII from Sample 1 and Factor V from Sample 2 seemed clearly to be "relationships with Professional Organizations". Items 9 and 10 both loaded very heavily on this factor for both samples. These items came from Area III, "Self and Teaching" of the TAS. Since both items concerned participation and membership in professional organizations and no other items were represented, a fairly clear factor was indicated. It is perhaps important that more variance was accounted for in Sample 2 than in Sample 1 for this factor.

Factor IX for Sample 1 and Factor X for Sample 2 were obviously dissatisfaction with salary. Two and only two items, # 63 and # 64 for both samples were highly loaded, and in a negative direction, on this factor. Although both samples indicated fairly close agreement in terms of proportion of variance accounted for, slightly more variance in the withdrawing teacher sample was indicated.

Factor X for Sample 1 and Factor III for Sample 2 seemed to be clearly Area VIII of the TAS, since 4 of the 5 items for both samples loaded heavily on this factor. Item # 6 in the TAS seems to be improperly classified as belonging to this area (or factor). It is perhaps noteworthy that the teachers still teaching showed considerably more variance (5.6 per cent) on this factor than did those who no longer apparently were directly concerned with the attitudes of the community toward the work of the teacher.

Factor XI for Sample 1 and Factor VIII for Sample 2 have been entitled "Encouragement of Critical Thinking by Students" since Items 16, 17 and 49 for Sample 1 and Items 16 and 17 for Sample 2 loaded most highly on this factor and no other items were represented.

Factor XV for Sample 1 and Factor VI for Sample 2 loaded on 5 items from Area V of the TAS for both samples. Item 31, "Parents taught the students to respect the rights and property of others," also loaded high for Sample 2. The suggested title for this factor is "Confidence in Students" and seemed to be of relatively greater importance (as determined by proportion of variance contributed by this factor) for the teachers who are still teaching.

"Attitudes toward the School System" is the title assigned to Factor XVI for Sample I and VII for Sample 2. This factor clearly emerged from both samples, although for Sample 1, Items 52, 54, and 57 from Area IX of the TAS were slightly more highly loaded for Factor I. Corresponding loadings for Factor XVI were .38, .40, and .36. The group of remaining teachers (Sample 2) apparently varied more in regard to this factor since the contribution of this factor was relatively greater for them than for the teachers who no longer were in teaching.

Factor XIX for Sample 1 and IX for Sample 2 both loaded highly on Items 50 (from Area IV of the TAS, "Working with Students") and 51 (from Area II, "Faith in People"). No other factors were represented and from the context of the two items, the tentative title for the factor has been suggested as "Altruism."

Area I of the TAS, "Teaching as a Career for Loved Ones," seemed to emerge as Factor XX for the withdrawing teacher sample and Factor IV for the remaining teacher sample. (Note that relatively greater importance was indicated for the teachers still teaching.) The three items from Area I loaded most highly on this factor for Sample 1, although Item 3 for Sample 2 was most related to Factor XVIII. (See Table 15.)

"Knowledge of Students' Background" is the tentative title suggested for Factor XXI of Sample 1 and Factor XI for Sample 2. Only one item loaded for Sample 1; the same item loaded heavily on Sample 2, and a second item (# 19) loaded heavily in a negative direction. Item 19 reads "A person can't be too careful in his dealings with other people." Perhaps logically a disagreement with this item might be interpreted as a concern for knowing about the background of students, which is the relevant content of Item 48.

Tables 14 and 15 present the suggested titles, with associated eigenvalues and percentages of total variance for the factors which seem to be unique to the two samples respectively. For the withdrawing teacher sample, four items from Area IV, "Working with Students," and 3 items from Area III, "Self and Teaching" made up Factor IV. It is apparently related to the "Self Concept as Teacher" factor emerging from the remaining teacher sample. The title of Factor IV (Sample 1) is "Satisfaction in Pupil-Teacher Relationships."

Item 4, "I would like to teach again," Item 73, "I would like to teach in Georgia again," and Item 7, "As a teacher, I had a feeling of self-satisfaction at the end of the day," loaded very heavily on Factor VII for the group of teachers who left at the end of the first year of teaching. While apparently unique for the Sample 1 as a factor, it seems related to Factor XIX of the remaining teacher sample "Self Concept as a Teacher."

Only one item (# 27, "Human Nature is fundamentally cooperative") was loaded highly on this apparently unique factor. Thus the name has been assigned "Human Nature is cooperative."

Factor XIII for the sample of withdrawing teachers loaded most highly (.70) on Item 26, "Students must be kept at a proper distance," Item 23 (.54), "All students must pass the work of the grade before they are promoted," and Item 19 (.44), "A person can't be too careful in his dealings with people." It seems somewhat related to Factor XVII, "Faith in People" of Sample 2. The tentative title assigned is "Educational Conservatism."

Item 41, "I was adequately prepared to help students understand current issues of world affairs," loaded most heavily (.70) and "As a teacher, I had many opportunities for social contacts with attractive single adults of the opposite sex." (.50) was the only other significant loading. Although this factor seems somewhat obscure, a tentative title is "Preparation for Challenge." It seems to be closely related to Factor II of both samples.

Table 14

Descriptions Emerging from Factor Analysis of Factors Apparently Unique to Sample 1 with Eigenvalues and Percentages of Total Variance

Factor No.	Descriptive Title	Eigenvalue	Per Cent of Total Variance
IV	Satisfaction in Pupil-Teacher Relationships	2.88	4.0
VII	Interest in Teaching Again	1.88	2.6
XII	"Human Nature is Cooperative"	1.42	1.9
XIII	Educational Conservatism	1.39	1.9
XIV	Preparation for Challenge	1.34	1.8
XVII	Appreciation of Parents and Community	1.18	1.6
XVIII	Expectations of Parents	1.13	1.5

Sample 1 comprised 392 teachers withdrawing from teaching in Georgia after the first year of teaching.

Table 15

Descriptions Emerging from Factor Analysis of Factors Apparently Unique to Sample 2 with Eigenvalues and Percentages of Total Variance

Factor No.	Descriptive Title	Eigenvalue	Per Cent of Total Variance
XII	Adequate Pupil Discipline	1.42	1.9
XIII	Confidence in Working with Handicapped Children	1.35	1.8
XIV	Teacher Resourcefulness	1.27	1.7
XV	Interest in School Improvement	1.19	1.6
XVIII	Professional Clannishness	1.10	1.5
XIX	Self Concept as Teacher	1.10	1.5
XX	Satisfaction in Social Interaction with Teachers	1.07	1.5

Sample 2 comprised 428 teachers remaining in teaching in Georgia for at least three consecutive years (1964 through 1967), and still teaching at time of most recent communication.

Only three items loaded highly or moderately on Factor XVII. These items were # 31, "Parents taught the children to respect the rights and properties of others," (.60); # 46, "The community appreciates teachers and recognizes their worth," (.44), and # 60, "I found ways of keeping the little problems from 'piling up'" (.38). Although somewhat obscure, a tentative title is "Appreciation of Parents and Community."

Factor XVIII for Sample 1 loaded .82 on Item 28, "Parents did not expect the school to teach morals as well as subjects." Thus the tentative designation of "Expectations of Parents" is given.

Table 15 gives the suggested titles of seven factors which seem to be unique to Sample 2. Factor XII has been given the title "Adequate Pupil Discipline" since it loaded heavily on Items 12 (.75) and 13 (.73) from Area IV, "Working with Students." It seems to be related to Factor IV of Sample 1.

"Confidence in Working with Handicapped Children" is the title assigned to Factor XIII of Sample 2. Items 38 (.78) and 39 (.71) loaded highly on this factor, which seems related to Factor II of both samples.

"Teacher Resourcefulness" is the tentative title assigned to Factor XIV emerging from the factor analysis of responses for Sample Factor loadings on Item 14 (.62), Item 15 (.58), and Item 29 (-.34) are the bases for the suggested title.

Factor XV for the Sample 2 analysis is entitled "Interest in School Improvement" since it loaded heavily on Item 61 (.68) and Item 62 (.72) and was also loaded heavily on Factor I for both samples.

Only one item, Item 3, "I would prefer my close personal friends to be from the teaching profession rather than from the business world," was loaded for this factor but this is relatively high (.80); the suggested title is "Professional Clannishness," It may be related to Factor XX for Sample 1 and Factor IV for Sample 2.

Six of the 9 items on Area III, "Self and Teaching" loaded very highly on this factor for Sample 2; thus the suggested title seems appropriate "Self Concept as a Teacher." By contrast, the 9 items of Area III were fragmented into 5 different factors for teachers who have withdrawn (at least temporarily) from teaching.

Factor XX was loaded (.59) for Item 6 and (.55) for Item 72; thus the suggested title has been assigned "Satisfaction in Social Interaction with Teachers." It is apparently related to Factor V for Sample 1.

Congruence of Factor Structures of Two Separate Factor Analyses for the Same Instrument, Two Samples. Harman (1960) has described a way of correlating the factor structures of two samples to the same set of fixed variables. Although not strictly a coefficient of correlation, the coefficient of congruence may be interpreted in a similar way, since it involves the intercorrelations of the two sets of factors in the usual Pearsonian sense. (Since there are no deviations from a mean, the coefficient of congruence cannot be regarded as a true correlation coefficient.) By this means, it is possible to determine whether or not the factor loadings on the two sets of factors are essentially alike. In this sense, it becomes an index of factor similarity. In the correlation the observations are the two sets of factor loadings for the separate items of the instrument compared. In this study, the two sets of factor loadings on 21 factors for Samples 1 and 2 were correlated for the 73 separate items of the TAS and the RTAS. The matrices of factor loadings for the two analyses were correlated by use of the BMD02D program (Dixon, 1965). The results provide a matrix of 42 x 42 correlations, which is a square matrix, including the intercorrelations within each separate factor analysis, as well as a set of correlations between the two sets of factors in the separate analyses. The between-samples correlations are the coefficients of congruence which are shown in Table 16.

The logical analysis which has been provided in the preceding discussion where an attempt was made to define and describe factors seemingly common to both samples and unique to each of the samples may be compared with the findings presented in Table 16. Within this table, the only correlations presented are those of (plus or minus) .30. Although Harman suggests the correlations below .90 are somewhat doubtful as

Table 16

Coefficients of Congruence for 21 Factors Emerging from Factor Analyses
of Two Samples on The Teaching Appraisal Schedule
Which Equal or Exceed .30

Sample 2 (Remaining Teachers) (N = 428)	Sample 1 (Withdrawing Teachers) (N = 392)																				
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI
I	93																				
II		73	-35											42							
III										87											
IV							37													57	
V								81													
VI															83						
VII																83					
VIII				30							62					-30					
IX																			52		
X									81												
XI																					50
XII				43																	
XIII		67																			
XIV				49																	
XV	48													-35							
XVI						75															
XVII		-36	63										63								
XVIII																				55	
XIX				58			73														
XX																	40				
XXI					75																

Decimals have been omitted.

indicating precise factor similarity, reference to Table 16 reveals that Factor I for both samples meets the exacting criterion. With the factor for Sample 1 indicated first, followed by the factor number for Sample 2, other relatively high similarity indices are apparent for Factors (X, III =.87); (XV, VI =.83); (XVI, VII =.83); (VIII, V =.81); (IX, X =.81); (VI, XVI =.75); (V, XXI =.75); (II, II =.73); (VII, XIX =.73). Although the loadings for factors other than the pair (I, I) are not above .90, a careful reading of Table 16 reveals that for Sample 1, Factors V, VI, VIII, IX, X, XI, XIII, XV, XIX, and XXI are correlated with one factor only,ranging from .87 for Factor X with Factor III of Sample 2 downward to .50 for Factor XXI with Factor XI of Sample 2. Of some interest is the finding that Factors XII and XVIII have no apparent counterparts in the Sample 2 of remaining teachers; these were tentatively entitled "Human Nature is Cooperative," and "Expectations of Parents." Factor I for Sample 1 is correlated not only very highly with Factor I of Sample 2, but also with Factor XV of Sample 2. Other "double-correlations are Factor III (-.35 with II, .63 with XVII); Factor VII (.37 with IV, .73 with XIX); Factor XIV (.42 with II, -.35 with XV); and Factor XVI (.83 with VII, -.30 with VIII). The most complex relationships appear for Factor II (.73 with II, .67 with XIII, and -.36 for XVII) and Factor IV which has four correlations above .30 (.30 with VIII, .43 with XII, .49 with XIV, and .58 with XIX). This "Faith in People" factor seems to be somewhat diluted among various other factors for the teachers remaining in the profession.

Upon turning to a similar analysis for the sample of remaining teachers, reference to Table 16 reveals that no single factor fails to have a degree of congruence or similarity with the factors of Sample 1. Stated differently, every single factor has at least one correlation of .30 or above with a factor in the other sample. These range from the .93 for Factor I with Factor I downward to (for a single relationship) .40 for Factor XX of Sample 2 to XVII for Sample 1. The number of factors which have only one correlation above .30 is 15. Of the remaining six factors, three are "doubletons" (related to two factors), and three are related to three factors. Factor IV is correlated .57 with XX and .37 with VII; Factor XV is correlated -.36 with II, .63 with III, and .63 with XIII); Factor XIX is correlated .58 with IV and .73 with VII. The three sets of coefficients which have three relationships above .30 are as follows: Factor II (.73 with II, -.35 with III, and .42 with XIV); Factor VIII (.30 with IV, .62 with XI, and -.30 with XVI); and XVII (-.36 with XX, .63 for III, and .63 for XIII). Although teachers who leave teaching may very well be expected to perceive teaching somewhat differently from those who remain for a reasonable period, there seems to be a considerable body of consensus which indicates a general pattern of similarity.

Second-Order Factor Analysis of Sample 1. Comrey (1962) has suggested a procedure by means of which homogeneous items may be combined to produce a more stable dimension. Utilizing this procedure, a special computer program was written to generate homogeneous items which had factor loadings of .30 or more on the first-order analysis of the responses of the 392 teachers in Sample 1. The resulting 392 sets of 21 scores were then factored to produce second-order factors. The BMD03M program was also utilized in this analysis. Seven interaction cycles resulted in the identification of seven second-order factors. Table 17 presents the factor loadings with eigenvalues and communalities from this analysis. The factors with the associated descriptions of the preceding discussion (with special reference to Tables 13 and 14) may be utilized in the interpretation of the loadings given in Table 17. The second-order Factor I seems to combine the Factor I and Factor XVI to be "relationships with the principal, other school personnel, and the school system." (Even Factor VI, "parent-teacher relationships," is loaded .34 on this second-order factor.) This variable accounted for 23.6 per cent of the total variance.

The second-order Factor II seems to be clearly the "confidence in one's professional preparation," since it loads most highly with II, followed by XIV, and IV. Factor II in second-order analysis contributed 9.1 per cent of the total variance.

Table 17

Second Order Factor Loadings on Teaching Appraisal Schedule for Sample 1 - 392 Teachers Withdrawing After One Year of Teaching

First Order Factor No.	Second Order Factor Loadings							Commu-nality
	I	II	III	IV	V	VI	VII	
I	85	08	05	09	-01	13	-04	75
II	09	86	03	01	15	01	14	80
III	-07	14	39	-18	47	23	-18	52
IV	25	58	10	-19	36	29	26	72
V	61	-09	21	09	12	-13	21	50
VI	34	17	56	-23	21	27	12	64
VII	59	24	19	-12	36	48	12	83
VIII	04	27	-08	18	02	29	54	49
IX	-24	-03	11	-64	-05	03	16	51
X	19	16	80	17	04	-03	06	74
XI	01	10	05	-22	31	-10	56	49
XII	10	03	-04	23	83	-03	08	76
XIII	-06	-09	45	-01	04	09	-22	27
XIV	-01	79	09	14	-03	-03	01	65
XV	14	25	24	11	80	06	07	80
XVI	88	09	11	09	05	15	07	83
XVII	31	14	68	19	10	-04	16	64
XVIII	03	-06	13	00	00	62	15	45
XIX	-10	09	06	67	22	18	31	65
XX	16	20	-02	12	05	67	-14	55
XXI	14	01	-01	05	-07	00	71	53
Eigenvalues	4.96	1.91	1.60	1.30	1.23	1.13	1.00	
Per Cent of Total Variance	23.6	9.1	7.6	6.2	5.8	5.5	4.7	
Cumulative Per Cent of Variance	23.6	32.7	40.3	46.5	52.3	57.8	62.5	

Decimals have been omitted.

Second-order Factor III is most highly loaded on Factors X and XVII, but has moderate loadings on VI, XIII, and III. Careful study of these factors suggests that this factor is measuring the teacher's adjustment to parent and community expectations. This third factor accounted for 7.6 per cent of the variance.

Factor IV seems to be "dissatisfaction with salary and working conditions," since it is loaded very heavily on Factors IX and XIX of the first-order analysis. This factor took out 6.2 per cent of the variance.

The fifth factor seems clearly to be "relationships with students." The first-order Factors XII and XV loaded .83 and .80 respectively on this factor and Factors III (.47), IV (.36), and VII (.36) were moderately loaded on this factor, which accounted for 5.8 per cent of the variance.

"Pride in the teaching profession" or "self concept in teaching" is perhaps an appropriate name for second-order Factor VI, since it loads most heavily on first-order Factors XX, VII, and XVIII. This factor took out 5.5 per cent of the variance.

Some type of sense of professional identification or teaching-role expectations must be what is measured by second-order Factor VII, which accounted for 4.7 per cent of the variance. The loadings were highest with, Factor XXI, "Knowledge of Students' Backgrounds," "Encouragement of Critical Thinking by Students," "Relationships with Professional Organizations," and "Altruism."

Summary

Chapter 4 has comprised five parts: (1) a comparison and follow-up study of the January 1965 population of beginning teachers with special reference to certification status, retention, and withdrawal; (2) a study of the perceptions of 1964-65 beginning teachers as related to certification status; (3) a brief survey of perceptions of 1964-65 beginning teachers with respect to other independent variables; (4) a resurvey of the 1964 population and an analysis of the responses of 392 withdrawing teachers to the Teaching Appraisal Schedule; and (5) an analysis of responses of a sample 428 teachers remaining for three years. A factor analyses of the withdrawing and remaining teachers were reported with some effort to interpret the responses.

Chapter 5 presents the findings of the depth study in two parts: (1) a report of the least-squares analysis of teacher self-reported data, pupil observations, and observations by trained observers; (2) a report of responses of 470 beginning teachers to the GBTQ with special attention to sex, certification, field of teaching, and place of college training.

CHAPTER V

Findings of Part II: The Depth Study

The operational hypothesis of Part II was that no significant differences would be found among responses on several self-report inventories, pupil evaluations, and appraisals of trained observers when the variables of sex, certification status, major teaching field, and place of college training (Georgia or non-Georgia colleges) were considered. The alternative directional hypotheses were that there would be differences in these dependent variables attributable to these various independent classifications. Two kinds of statistical procedures were used, viz. (1) a least-squares analysis of variance for the continuous variables, and (2) a chi-square contingency test for the categorical responses to the GBTQ. Section 1 of this chapter presents the findings resulting from the least-squares analysis of 33 continuous variables, 21 derived from teacher self-reports, five from pupil observation reports, and seven from classroom observations of specially trained observers. Section 2 presents a summary of the application of the chi-square test to 94 dependent variables, with the independent classification being the four major variables: sex, certification status, field of teaching, and place of college training. In both sections, findings are presented in a series of tables and figures with accompanying discussion.

Analysis of Variance of Continuous Variables

In addition to the four main effects of sex, certification, field, and place of training, the least-squares model employed in the analysis tested hypotheses for first-order interactions. These interaction hypotheses were concerned with specific two-variable combinations of effects, and tested the hypothesis that there would be no difference in the differences between specific pairs of variables. For example, hypotheses concerning the main effects of sex stated that men and women teachers would not differ on a specific dependent variable (more specifically, that the means as estimates of the population means would be equal and that any obtained difference could be accounted for by random variations).

Similarly, hypotheses about certification status stated that means (as representative values) of professional teachers would not differ (except for random variations) from means of provisional teachers. The interaction hypothesis sex-by-certificate specified that the difference between the means of men and women professional teachers would be equal to the difference between the means of men and women provisional teachers. (An alternative statement is that the differences between men professional and men provisional teachers is equal to the difference between women professional and women provisional teachers. Still another alternative is that the combination of men professional and women provisional is equal to the combination of men provisional and women professional.) Where significant interaction is indicated, a two-dimensional graphic representation is presented for understanding of the relationships disclosed by the analysis.

Three of the four main effects and three of the first-order interactions involved a two-way classification of the variables. Thus, the sex (men and women), certificate (professional and provisional), and place (Georgia and non-Georgia) variables, and the three combinations (sex-by-certificate, sex-by-place, and certificate-by-place interactions) involved one degree of freedom for the between-means variance and 419 df for the within-groups variance. The minimum variance ratios for significance for 1 df in the numerator and 419 df are 3.86 for the .05 level and 6.70 for the .01 level of significance. Hypotheses of no differences were rejected if the .05 level of significance was indicated, with .01 levels noted if the size of the F-ratio was sufficiently large.

The main effect field consisted of a five-way classification into elementary, English, mathematics, science, and social studies teachers. There were also three first-order interactions which had four degrees of freedom: sex-by-field, certificate-by-field, and place-by-field. The minimum variance ratios for rejection of the hypotheses are 2.39 for .05 level and 3.36 for .01 level. Appropriate notations are made in the tables when one of these levels of significance was justified.

Teacher Practices Questionnaire Scales

Table 18 presents a summary of the variance ratios for the TPQ. The adjusted means for the various subsets are given in Table 19. These scales were designed to measure the degree of appropriateness of specific behaviors presumably related to specific teacher roles. From Table 19, it may be observed that the arrangement of the means in descending order of importance is as follows: (1) counselor, (2) motivator, (3) advice-information giver, (4) referrer, and (5) disciplinarian. Identical hierarchical patterns were found by Sorenson, Husek and Yu (1963), Brown (1965), Riggs (1966), Gifford (1966), Sears (1967), Smith (1967), and Carter (1967).

The range of possible means on the TPQ Scales is from 1 to 5, with 2 indicating "fairly inappropriate," 3 indicating "acceptable," and 4 implying "fairly appropriate" behavior for a given teaching practice associated with a specific teaching role. As shown by the means of Table 19, the range of behavior suggests that the disciplinarian role is viewed as fairly close to inappropriate, the referrer role is about half-way between inappropriate and acceptable, with the other three roles seen as between acceptable and fairly appropriate.

When the various subclasses associated with the analysis of variance are scanned, it may be noted that no significant differences were obtained for the advice-information giver and the referrer roles (Scales I and IV). Significant differences were obtained on the Motivator and Disciplinarian Scales between men and women. Women teachers were found to perceive the role of Motivator as more appropriate in teaching, while men teachers perceived the role of the Disciplinarian as more appropriate. Other differences between men and women teachers although nonsignificant showed men slightly more likely to view the Referrer role as more appropriate with women regarding Counselor and Advice-information Giver roles more favorably.

The only significant difference obtained for the main effect of certification status was Scale III (Counselor), in which professional teachers perceived the role of the Teacher-as-Counselor as more appropriate.

Table 18

Summary of F-Values for Analysis of Variance of the Teacher Practices Questionnaire[a]

Source of Variation	df	I	II	III	IV	V
Main Effect						
Sex	1	.05	16.92**	3.15	1.81	5.20*
Certificate	1	.01	.77	4.19*	2.18	0.38
Field	4	2.60	1.90	3.16*	1.94	2.28
Place of College Training	1	1.08	3.93**	3.11	.22	5.87**
Interaction Effect						
Sex x Cert.	1	2.16	8.25**	1.44	.01	.04
Sex x Field	4	2.32	.89	.99	1.96	2.04
Sex x Place	1	.20	.09	.05	.07	2.41
Cert. x Field	4	1.51	.72	.98	.32	.44
Cert. x Place	1	1.62	.03	.88	.84	3.15
Field x Place	4	1.41	.52	1.88	.75	.12
Error (df and Mean Square)[b]	419	.21	.25	.35	.25	.21

*Significant at .05 level.
**Significant at .01 level.

[a] The names of the specific column headings are given on page 43.

[b] The sums of squares for each main and/or interaction effect and for error may be obtained by multiplying the F-value times the degree(s) of freedom times the error mean square.

Table 19

Adjusted Means of the Main Effect Subclasses for the Teachers Practices Questionnaire (TPQ) Scales

Source of Variation	Scales[a] I	II	III	IV	V
Sex					
Men	3.53	3.52	3.65	2.62	2.35
Women	3.55	3.76	3.77	2.54	2.23
Certificate					
Professional	3.55	3.66	3.77	2.54	2.28
Provisional	3.54	3.62	3.64	2.62	2.31
Field					
Elementary	3.49	3.68	3.82	2.44	2.18
English	3.50	3.49	3.50	2.63	2.29
Mathematics	3.56	3.74	3.86	2.63	2.40
Science	3.63	3.68	3.70	2.56	2.27
Social Studies	3.52	3.60	3.65	2.62	2.31
Place					
Georgia	3.58	3.69	3.76	2.57	2.35
Non-Georgia	3.50	3.59	3.65	2.59	2.23

[a] I - Advice-Information Giver
II - Motivator
III - Counselor
IV - Referrer
V - Disciplinarian

The teacher who assumes this role seeks basic causes underlying behavior, concerns himself primarily with the students, helps him discover more causes of action on which to base his decision, and wants the student to think independently. (Sorenson, Husek, and Yu, 1963).

Although nonsignificant, professional teachers favored Advice-Information Giver and Motivator roles, while provisional teachers thought the Referrer and Disciplinarian roles were relatively more appropriate, as compared with the professional teachers.

Teaching fields also differentiated teachers on the Counselor role. The arrangement of the means for the teaching fields was in the following descending order: mathematics, elementary, science, social studies, and English. As indicated in Table 20, the Duncan multiple-range test reveals that two differences which were found to be significant (among the possible ten differences) were that the mathematics and elementary teachers viewed this role as more appropriate than did the teachers of the other three fields. No ready explanation for such finding comes to mind, although the opinion is frequently expressed that elementary teachers have relatively more time with the child and must because of the greater immaturity of the pupil concern herself with many facets of his behavior. In the usual self-contained elementary classroom fewer pupils and more time with them may help to explain the elementary teacher's perception of the importance of the Counselor role. Why mathematics teachers view this role as more important than other high school teachers is not readily apparent.

Although no other significant differences were found, the relative order of appropriateness assigned by teachers from the various fields to the other four roles of the TPQ is perhaps noteworthy. For the Advice-Information Giver role, the order of appropriateness in descending order is: Science, mathematics, social studies, English, and elementary. For the Motivator role, the order proceeds downward from mathematics, science, elementary, social studies, English. The hierarchy for the Referrer role goes downward from English, mathematics, social studies, science, and elementary. The similar arrangement for the Disciplinarian role is mathematics, English, social studies, science, and elementary.

Table 20

Duncan's New Multiple Range Test Applied to the Differences Between Fields on the Self Ideal Scale of the Index of Adjustment and Values

Fields	English	Mathematics	Social Studies	Science	Elementary
Means	218.36	222.01	222.95	225.64	228.39

Any two treatment means not underscored by the same line are significantly different. Any two treatment means underscored by the same line are not significantly different.

Place of training differentiates teachers in two TPQ roles: the Motivator and the Disciplinarian scales. Georgia-trained teachers perceived both the Motivator role and the Disciplinarian role more favorably than did the teachers trained in states other than Georgia. (More detailed descriptions of these roles may be found in Chapter 3.) Georgia-trained teachers viewed all the roles as slightly (or significantly) more appropriate except for Scale IV, the Referrer role.

Only one significant interaction, that of sex-by-certificate for the Motivator role (Scale II), in the TPQ analysis was obtained. As indicated in Figure 6, the difference between men and women was significantly greater among provisional teachers than among professionally trained teachers. Stated differently, men and women professional teachers perceived the Teacher-as-Motivator more nearly alike than did the men and women provisional teachers. In both instances, women viewed the role as more appropriate. (It may be recalled that a significant main effect for sex was obtained on this scale.)

Index of Adjustment and Values

Tables 21 and 22 present respectively the summary of the variance ratios and the adjusted means for the three IAV variables. As indicated in the tables, men and women differed significantly on the self-acceptance variable with men teachers indicating self-acceptance to a significantly greater extent than women. Practically identical means (to the second decimal place) were indicated for the self-description variable. Women had a slightly greater self-ideal mean than did the men.

These mean values are slightly higher than those obtained by Bills in the construction of the Index of Adjustment and Values for a large number of college students who assisted in the development of the instrument. The means for high school students (N = 1,599) were: Self-description 188; Self-Acceptance 178; Self-Ideal 219. For college students (N = 1,728) the corresponding means were 182, 172, and 221.

There were no significant differences found for the main effect: certificate. The value of 3.81 for self-acceptance approached significance

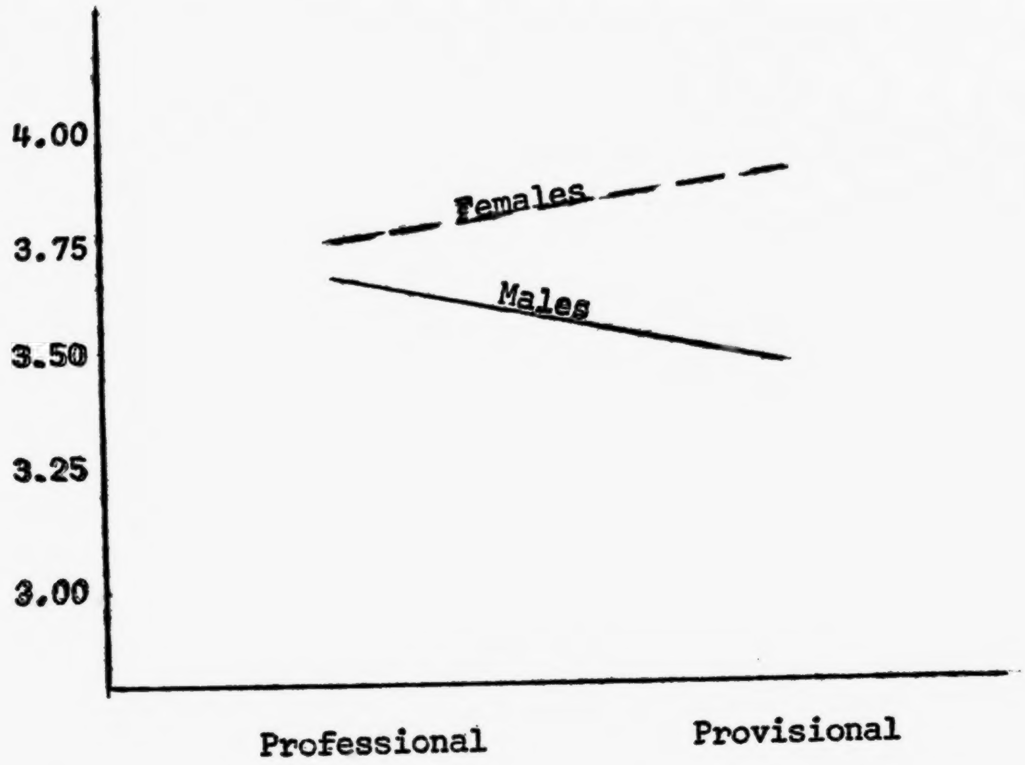


Figure 6. Interaction of Sex-by-Certificate for the Motivator role (Scale II) of the Teacher Practices Questionnaire.

Adjusted Means of Subsets

	Professional	Provisional	Total
Men	3.63	3.42	3.52
Women	3.70	3.82	3.76
Total	3.66	3.62	

Table 21

Summary of F-Values for Analysis of Variance of the Index of Adjustment and Values

Source of Variation	df	Self Description	Self Acceptance	Ideal Self
Main Effect				
Sex	1	.00	4.75*	3.03
Certificate	1	.56	3.81	.21
Field	4	3.14*	1.32	4.23*
Place of College Training	1	4.65*	2.87	2.79
Interaction Effect				
Sex x Cert.	1	2.30	1.07	.71
Sex x Field	4	1.67	.19	2.53*
Sex x Place	1	.29	.19	1.88
Cert. x Field	4	.57	.69	.59
Cert. x Place	1	.01	4.47*	.08
Field x Place	4	.89	1.94	.36
Error (df and Mean Square)[a]	419	380	589	208

*Significant at .05 level.

[a] The sums of squares for each main and/or interaction effect and for error may be obtained by multiplying the F-value times the degree(s) of freedom times the error mean square.

Table 22

Adjusted Means of the Main Effect Subclasses for the Index of Adjustment and Values

Source of Variation	Self Description	Self Acceptance	Self Ideal
Sex			
Men	195.7	194.7	222.1
Women	195.7	188.8	224.9
Certificate			
Professional	196.5	189.2	223.8
Provisional	194.9	194.3	223.1
Field			
Elementary	200.3	195.5	228.4
English	188.4	185.4	218.4
Mathematics	194.0	191.3	222.0
Science	198.2	193.2	225.6
Social Studies	197.6	193.3	222.9
Place			
Georgia	197.9	193.9	224.7
Non-Georgia	193.5	189.6	222.2

(3.87 was the "cut-off" F-ratio) and favored the provisionally certified subset. In the other two variables, slight differences favoring the professional teachers were obtained.

Significant differences for the main effect: field were obtained for the Self-Description and Self-Ideal variables. Tables 23 and 24 present the results of Duncan's New Multiple Range Test as applied to these two variables. It may be observed that the order in both scales was precisely the same, descending from the highest mean for elementary, through science, social studies, mathematics, to the lowest mean for English teachers. Both tables reveal that two clusters of subsets were obtained, but they were not quite the same. For the Self-Description Scale, the English and mathematics teachers were grouped together, while the elementary, science, social studies, and mathematics teachers were another subset. Thus the mathematics teachers were not different from any other group, while elementary, science, and social studies teachers were significantly higher in Self-Description than the English teachers.

Table 24 reveals that the two clusters on the Self-Ideal consist of elementary and science teachers as one subset and the science, social studies, mathematics, and English teachers as the other subset. In this scale, science teachers held an intermediate position, not significantly different from any of the other groups. (Stated differently, the science teachers were homogeneous with all other fields.) Elementary and science teachers were significantly higher on IAV Self-Ideal than mathematics and English teachers.

While there were no significant differences for main effect: field for the IAV Self-Acceptance variable, the order of the means for this scale was quite similar though not exactly the same as for self-description and self-ideal. Elementary teachers again had the highest mean, and the fourth and fifth were again mathematics and English teachers respectively. A mean difference of one-tenth of a point placed social studies teachers ahead of science teachers in this scale, a reversal of the order in the other two IAV subvariables.

Table 23

Results of Duncan's New Multiple Range Test Applied to Differences Between Means for Main Effect: Field for IAV Self-Description

Fields	English	Mathematics	Social Studies	Science	Elementary
Means	188.4	194.0	197.6	198.2	200.3
		———	———	———	———
	———	———			

Any two field means not underscored by the same line are significantly different. Any two means underscored by the same line are not significantly different.

Table 24

Results of Duncan's New Multiple Range Test Applied to Differences Between Means for Main Effect: Field for IAV Self-Ideal

Fields	English	Mathematics	Social Studies	Science	Elementary
Means	218.4	222.0	222.9	225.6	228.4

Any two field means not underscored by the same line are significantly different. Any two field means underscored by the same line are not significantly different.

Two significant interactions were obtained for the IAV Variables. These interactions were certificate-by-place for IAV II, Self Acceptance and sex-by-field for IAV III, Ideal Self. Figure 7 depicts the pattern revealed by the significant interaction of certificate and place of training for the Self Acceptance variable. Three of the four subsets identified by cross-classification of certificate-by-place had similar means of training on the Self Acceptance variable. These subgroups were professional Georgia-trained, provisional Georgia, and provisional non-Georgia-trained teachers. The professionals who came from other states (or at least had their professional training in other states, mostly other southeastern states) had a lower mean than the other three groups. The significance of the difference in the differences between means was accounted for in two ways: the difference in magnitude (194.0 minus 184.5) for professional teachers as compared with provisional teachers (194.7 minus 193.8), which accounted for most of the significance, but there was also a reversal in the direction of the difference, since provisional teachers trained out of Georgia were slightly higher than their Georgia counterparts. The absence of a main effect for either certificate or place is perhaps also noteworthy. The significance in the absence of main effect differences accounts for the directions of the differences being reversed.

Figure 8 portrays graphically the sex-by-field interaction for the IAV Ideal Self variable. This variable had a significant main effect for field indicating that elementary, science, and social studies teachers (in that order) differed significantly from mathematics and English teachers (although mathematics teachers "belonged", that is, were homogeneous to both clusters). Keeping the main effect for field in mind as well as the nonsignificant difference favoring women for the main effect: sex, Figure 8 reveals that there was a much greater difference between the men and women teachers for the fields of English and social studies, in both instances favoring women. In all three other fields, not only did the means favor the men, but they were considerably smaller in magnitude. The differences arranged in decreasing order of magnitude were (a plus sign indicates a higher mean for men): -13.52 (English); -9.96 (social studies);

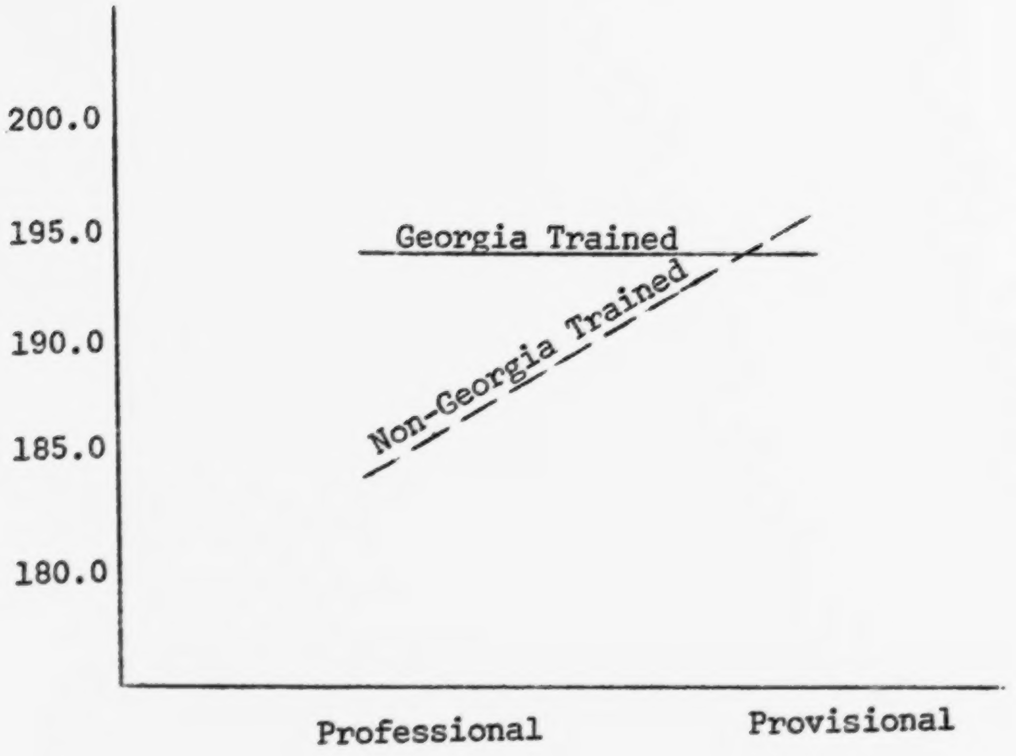


Figure 7. Interaction of Certificate-by-Place for the Self Acceptance Scale of the Index of Adjustment and Values.

Adjusted Means of Subsets

	Georgia-Trained	Non-Georgia Trained	Total
Professional	193.96	184.50	189.23
Provisional	193.80	194.70	194.25
Both Groups	193.88	189.60	

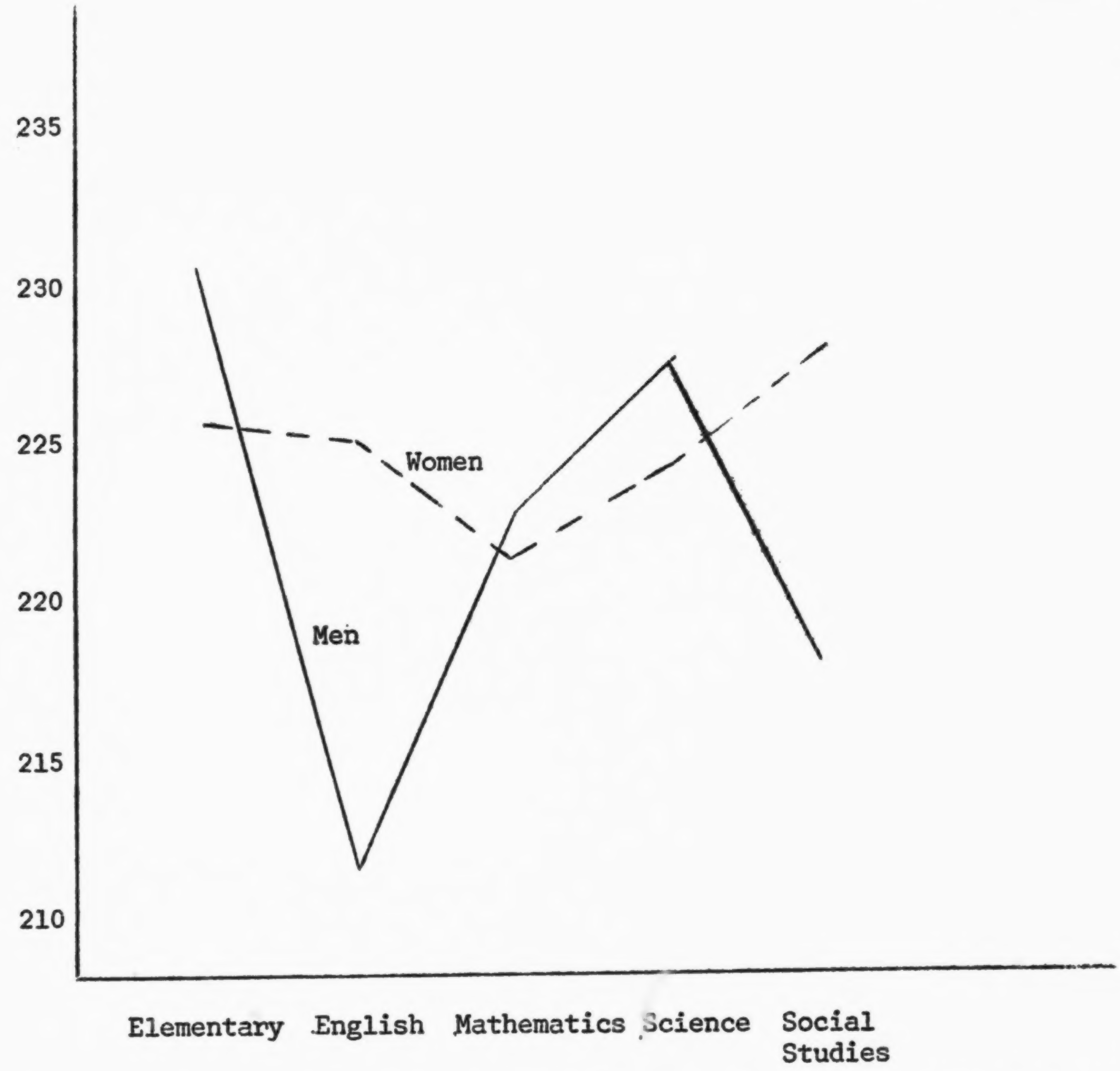


Figure 8. Interaction of Sex-by-Field for the Ideal Self Scale of the Index of Adjustment and Values.

	Elementary	English	Mathematics	Science	Social Studies	All Fields
Men	230.85	211.60	222.63	227.25	217.97	222.1
Women	225.93	225.12	221.39	224.03	227.93	224.9
Both	228.4	218.4	222.0	225.6	222.9	

4.92 (elementary); 3.22 (science); and 1.24 (mathematics). Male English teachers and male social studies teachers were particularly low in the Self-Ideal variables.

Teacher Characteristics Schedule

One of the significant outcomes of the Teacher Characteristics Study directed by Ryans (Ryans, 1960) was the development of instruments for measuring some teacher personality and behavior characteristics. One instrument which was found to have considerable validity was the Teacher Characteristics Schedule (*TCS*), which was a set of objective exercises to which a teacher responded and which correlated positively with evidences of teacher competence. Ten indirect dimensions of behavior and personality were identified. These dimensions were identified by letters with "co" as a subscript (the subscript "co" standing for "correlated with some criterion"). The following letters were employed for these ten dimensions with the accompanying brief description:

X_{co} - warm, understanding versus aloof, restricted behavior

Y_{co} - responsible, systematic versus evading, unplanned behavior

Z_{co} - stimulating, imaginative versus dull, routine behavior

R_{co} - favorable versus unfavorable opinions of pupils

R_{1co} - favorable versus unfavorable opinions of democratic classroom procedures

Q_{co} - favorable versus unfavorable opinions of administrative and other school personnel

B_{co} - learning-centered ("traditional") versus child-centered ("permissive") educational viewpoints

I_{co} - superior versus poor verbal understanding

S_{co} - emotional stability versus instability

V_{co} - validity of schedule responses (or the tendency to avoid self-enhancing expressions).

In developing the *TCS* (and the *COR* to be considered at a later point), Ryans has indicated that the scores derived from these scales are not to be considered as indicating an absolute level of teaching competence. He has consistently held the position that the dynamics of teaching are such that one cannot infer the possession of a given level of teaching competence by virtue of having a relatively high score on an indirect measure such as one of the TCS dimensions. They have been quite useful in the relative sense to permit internal as compared with normative comparisons. It is in this sense that the TCS has been used in this study. No attempt has been made therefore to justify a normative level of competence for the teachers in this sample. The means tend to be slightly above 50, which indicates that the group had more "plus" than "minus" scores as a whole. (The method of scoring, it may be recalled, consisted of adding a constant of 50 to the net value derived from adding "plus" items and subtracting "minus" items).

Tables 25 and 26 present the variance ratios and adjusted means for the ten TCS dimensions. Reference to Table 25 reveals that there were no significant differences for the main effect: place of training. Nor were there any significant interaction differences. There were, however, four differences which were significant for main effect: sex; four significant for main effect: certificate; and four significant for main effect: field.

As indicated in Table 26, women were superior to men in the three major dimensions, X_{co}, Y_{co}, and Z_{co}. Men were markedly higher than women in Sco, the emotional stability factor. These findings are substantially similar to those of Ryans, who found more differences among secondary than among elementary teachers with respect to sex differences. The method of stratified sampling employed in this study resulted in a 73 per cent secondary and 27 per cent elementary. Thus the differences at the secondary level may have obscured some homogeneity at the elementary level. (There was no significant interaction.) Thus women responded to the TCS in such a way as to be perceived as more understanding (X), more responsible and systematic (Y), and more stimulating and imaginative (Z). Men, however, were more emotionally stable.

Although differences between men and women in the other scales were nonsignificant, the direction and magnitude of the differences obtained

Table 25

Summary of F-Values for Analysis of Variance of the Teacher Characteristics Schedule

Source of Variation	df	Dimensions[a]				
		X_{co}	Y_{co}	Z_{co}	R_{co}	R_{1co}
Main Effect						
Sex	1	3.93*	72.53**	7.27**	.25	3.70
Certificate	1	6.23*	.22	3.18	6.01*	4.39*
Field	4	4.01**	.54	2.32	.88	1.78
Place of College Training	1	1.25	.00	.11	.28	1.05
Interaction Effect						
Sex x Cert.	1	.00	.60	.00	1.52	.07
Sex x Field	4	.36	2.36	1.09	1.12	.19
Sex x Place	1	.39	.43	.79	2.29	.00
Cert. x Field	4	.39	.96	.49	.82	.12
Cert. x Place	1	.24	.00	.10	1.85	1.34
Field x Place	4	.61	1.03	.09	.17	.12
Error (df and Mean Square)[b]	419	25.3	14.6	19.3	33.5	73.4

*Significant at .05 level.
**Significant at .01 level.

[a] The specific dimensions of the TCS are described in the accompanying text.

[b] The sums of squares for each main and/or interaction effect and for error may be obtained by multiplying the F-value times the degree(s) of freedom times the error mean square.

Table 25 (Continued)

Summary of F-Values for Analysis of Variance of the Teacher Characteristics Schedule

Source of Variation	df	Dimensions[a]				
		Q_{co}	B_{co}	I_{co}	S_{co}	V_{co}
Main Effect						
Sex	1	2.35	1.55	2.47	42.34**	.01
Certificate	1	3.93*	.47	.69	.18	.91
Field	4	.35	2.54*	2.24	2.39*	4.43**
Place of College Training	1	1.69	.51	3.72	1.94	3.03
Interaction Effect						
Sex x Cert.	1	1.07	.72	.00	.02	.34
Sex x Field	4	.43	.80	.35	.88	2.01
Sex x Place	1	.03	.80	.12	.12	.52
Cert. x Field	4	1.07	.91	1.05	.11	.21
Cert. x Place	1	.03	.09	1.43	1.79	.11
Field x Place	4	1.20	.56	.70	.29	1.77
Error (df and Mean Square)[b]	419	28.8	17.1	37.9	21.4	15.2

*Significant at .05 level.
**Significant at .01 level.

[a] The specific dimensions of the TCS are described in the accompanying text.

[b] The sums of squares for each main and/or interaction effect and for error may be obtained by multiplying the F-value times the degree(s) of freedom times the error mean square.

Table 26

Adjusted Means of the Main Effect Subclasses for the Teachers Characteristics Schedule

Source of Variation	Dimensions[a] X_{co}	Y_{co}	Z_{co}	R_{co}	R_{1co}
Sex					
Men	53.6	49.6	54.8	49.9	51.6
Women	54.8	53.3	56.1	50.2	52.2
Certificate					
Professional	54.9	51.6	55.9	50.8	52.2
Provisional	53.5	51.4	55.0	49.3	51.6
Field					
Elementary	55.5	51.2	55.8	51.1	52.5
English	54.1	51.5	55.3	50.0	51.6
Mathematics	52.5	51.4	54.2	49.6	51.5
Science	53.6	51.2	55.4	49.7	52.2
Social Studies	55.2	52.0	56.5	50.0	51.8
Place					
Georgia	54.5	51.5	55.5	50.2	51.8
Non-Georgia	53.9	51.5	55.4	49.9	52.1

[a] The specific dimensions of the TCS are described on page 45.

Table 26 (Continued)

Adjusted Means of the Main Effect Subclasses for the Teacher Characteristics Schedule

Source of Variation			Dimensions[a]		
	Q_{co}	B_{co}	I_{co}	S_{co}	V_{co}
Sex					
Men	49.7	53.1	66.1	57.9	57.5
Women	48.8	52.5	65.0	54.5	57.6
Certificate					
Professional	49.8	52.6	65.3	56.1	57.4
Provisional	48.7	52.9	65.8	56.3	57.7
Field					
Elementary	49.8	52.6	64.2	56.3	56.6
English	48.7	52.9	66.8	54.5	59.2
Mathematics	49.3	53.9	64.6	56.3	56.7
Science	49.3	52.8	66.0	57.2	57.1
Social Studies	49.2	51.7	66.3	56.7	58.1
Place					
Georgia	48.9	52.6	64.9	55.9	57.2
Non-Georgia	49.6	52.9	66.2	56.5	57.9

[a] The specific dimensions of the TCS are described on page 45.

are worthy of comment. Women had slightly more favorable opinions of pupils (R_{co}), democratic classroom procedures (R_{1co}), and validity scores (V_{co}). Men had more favorable opinions of administrative and other school personnel, more "traditional" (learning-centered) (B_{co}) viewpoints and slightly higher scores on verbal understanding (I_{co}).

A significant difference was obtained between professional and provisional teachers on the X_{co} dimension. Professional teachers were more understanding and friendly than were provisional teachers. Although relatively more professional teachers were women, the absence of a significant interaction (F in fact being zero) indicated that the difference related clearly to both men and women, teaching in all fields, whether trained in Georgia colleges or in institutions outside the state of Georgia. Professional teachers also had more favorable opinions of pupils (R_{co}), democratic practices (R_{1co}), and administrators and other school personnel (Q_{co}). Although differences in other dimensions were not significant, professionally-educated teachers were higher in the other two major dimensions, Y_{co} and Z_{co}. Provisional teachers were slightly higher in B_{co} (more traditional, learning-centered viewpoints - not surprising, since their education was primarily liberal arts or pre-professional for careers other than teaching), I_{co} (verbal understanding), S_{co} (emotional stability), and V_{co} (tendency to avoid self-enhancing statements, or tendency to give a valid, i.e., honest response).

Differences in the main effect: field were obtained for the X_{co}, B_{co}, S_{co}, and V_{co} dimensions. The means for these various dimensions are listed in Table 26. Since some of these means indicate homogeneity (nonsignificant differences), Tables 27, 28, 29, and 30 have been prepared to show the precise nature of these differences. The rank of the means in descending order for the X_{co} factor (warm, understanding versus restricted, aloof) was elementary, social studies, English, science, and mathematics. Three overlapping clusters were revealed by the Duncan New Multiple Range test. Elementary, social studies and English teachers formed one homogeneous subset; social studies, English, and science teachers composed a second subset; and English, science, and mathematics teachers made up a

Table 27

Duncan's New Multiple Range Test Applied to the Differences
Between Means for Teaching Fields of
TCS Dimension X_{co} (Warm versus Aloof)

Fields	Mathematics	Science	English	Social Studies	Elementary
Means	52.52	53.63	54.12	55.20	55.47
			———	———	———
		———	———	———	
	———	———	———		

Any two means for fields not underscored by the same line are significantly different. Any two means for fields underscored by the same line are not significantly different.

Table 28

Duncan's New Multiple Range Test Applied to the Differences Between Means for Teaching Fields of TCS Dimension B_{CO} ("Traditional" versus "Permissive" Educational Viewpoint)

Fields	Social Studies	Elementary	Science	Mathematics	English
Means	51.65	52.60	52.81	52.89	53.90

Any two means for fields not underscored by the same line are significantly different. Any two means for fields underscored by the same line are not significantly different.

Table 29

Duncan's New Multiple Range Test Applied to the Differences Between Means for Teaching Fields of TCS Dimension S_{co} (Emotional Stability)

Fields	English	Mathematics	Elementary	Social Studies	Science
Means	54.53	56.32	56.33	56.70	57.15

Any two means for fields not underscored by the same line are significantly different. Any two means for fields underscored by the same line are not significantly different.

Table 30

Duncan's New Multiple Range Test Applied to the Differences Between Means for Teaching Fields of TCS Dimension V_{CO} (Validity of Response)

Fields	Elementary	Mathematics	Science	Social Studies	English
Means	56.59	56.71	57.12	58.11	59.2

Any two means for fields not underscored by the same line are significantly different. Any two means for fields underscored by the sam line are not significantly different.

third subset. When the teachers from the five different fields were grouped in pairs, three of the possible ten differences as follows were obtained: elementary teachers were higher than science, elementary teachers differed significantly from mathematics teachers, and social studies were above mathematics teachers in the "warm, understanding" dimension of teacher behavior.

As indicated in Table 28, the rank order (from top to bottom) on the B_{co} dimension (learning-centered "traditional" versus child-centered "permissive" educational viewpoints) was as follows: English, mathematics, science, elementary, and social studies teachers. Two homogeneous subsets were revealed by the New Multiple Range Test. One subset consisted of English, mathematics, science, and elementary teachers. The second subset was composed of mathematics, science, elementary, and social studies teachers. When the five fields are considered in pairs, only one of the possible ten differences was significant; English teachers in the sample were found to be significantly more "traditional" and less "permissive" in their viewpoints than social studies teachers.

The rank order of the means for the five fields on the S_{co} (emotional stability) dimension of the TCS was (from high to low): science, social studies, elementary, mathematics, and English teachers. As shown in Table 29, the New Multiple Range Test revealed two homogeneous subsets: science, social studies, elementary, and mathematics as one cluster, and mathematics and English teachers as another. Thus mathematics teachers occupied an intermediate position, not differing from any of the other fields. When the five fields are viewed in pairs, three of the possible ten differences were revealed to be significant: science teachers were more stable than English, social studies teachers had a higher mean than English teachers, and elementary teachers were also more emotionally stable than the English teacher group.

When the data were submitted to the Duncan New Multiple Range Test, the V_{co} scale, indicating some tendency to avoid self-enhancing responses, differentiated three subsets. As disclosed by Table 30, the rank of the means by fields, in descending order were: English, social studies, science, mathematics, and elementary teachers. The three subsets were: (1) English, social studies, and science teachers; (2) social studies, science, and mathematics; and (3) science, mathematics, and elementary. Six of the possible ten differences were found to be significant: English over science, mathematics, and elementary; social studies over mathematics and elementary. and science over mathematics.

TERP Attitude Scale (Kerlinger Education Scale VII)

The TERP Attitude Scale (Teacher Education Research Project Attitude) was devised and validated by Kerlinger to measure attitudes toward education and educational issues. It is also correctly called the Kerlinger Education Scale VII. Three scores are derived from this 30-item scale, a permissive-progressive attitude score (Factor A), a restrictive-traditional attitude score (Factor B), and a difference score (A - B). Although some critics have questioned the unidimensionality of these attitudes, Kerlinger has presented a large amount of evidence indicating that the instruments are not only very reliable for a short instrument, but also in fact possess a high degree of predictive and construct validity. The difference score is considered to be in some degree a measure of the degree to which a consistent, pervasive philosophy of education has crystallized.

Tables 31 and 32 present the variance ratios and adjusted means of the three TERP scores. This instrument, more perhaps than any other of the group of self-report instruments, differentiates teachers who are professionally educated from those who have not had the professional sequence in education. Not only is there no significant differences between men and women, between those trained in Georgia or outside of Georgia, but there are no significant interactions. Only Factor A differentiates among the teachers of the fields. What is clear from Table 31 is that the F-ratio for Factor A and for (A - B) is very highly significant, for the ratios for these two variables are the highest obtained in the entire analysis. In addition, main effect: certificate approaches significance in the case of Factor B. Professional teachers expressed considerably greater agreement with those statements indicating understanding of children, democratic planning, adapting the curriculum to children's needs, helping children to

Table 31

Summary of F-Values for Analysis of Variance of the TERP Attitude Scale

Source of Variation	df	Progressive	Traditional	Progressive Traditional
Main Effect				
Sex	1	.00	.79	.40
Certificate	1	16.83**	3.58	16.26**
Field	4	2.87*	1.16	.64
Place of College Training	1	1.20	2.45	3.17
Interaction Effect				
Sex x Cert.	1	1.70	.31	.26
Sex x Field	4	1.14	.14	.47
Sex x Place	1	.02	.42	.12
Cert. x Field	4	.78	1.85	.34
Cert. x Place	1	.03	.86	.25
Field x Place	4	.48	.41	.09
Error (df and Mean Square)[a]	419	111.9	130.3	244.8

*Significant at .05 level.
**Significant at .01 level.

[a] The sums of squares for each main and/or interaction effect and for error may be obtained by multiplying the F-value times the degree(s) of freedom times the error mean square.

Table 32

Adjusted Means of the Main Effect Subclasses for the Terp Attitude Scale

Source of Variation	Factor A	Factor B	A-B
Sex			
Men	79.3	69.0	10.3
Women	79.4	68.0	11.4
Certificate			
Professional	81.7	67.5	14.2
Provisional	77.1	69.6	7.5
Field			
Elementary	82.5	69.5	13.0
English	75.9	66.2	9.7
Mathematics	79.6	69.4	10.2
Science	79.4	67.7	11.7
Social Studies	79.3	69.7	9.6
Place			
Georgia	78.8	69.4	9.4
Non-Georgia	80.0	67.7	12.3

develop self-directed behavior, and other related ideas, whereas provisional teachers had a higher mean (not quite significant from chance) in Factor B, expressing agreement with items expressing importance of learning content for its cultural value, developing the mental faculties, insisting upon the child's meeting specified achievement standards before being promoted, socially imposed goals, and other more teacher-directed practices. The difference score between the Factor A and Factor B, indicated that the combination of a higher A and a lower B score, for the professional teachers produced a much greater difference score suggesting a more distinct set of beliefs about education. In the TERP Attitude Scale, a score of 60 represents a "neutral" position: neither agreement not disagreement with a specific viewpoint. Both professional as well as provisional teachers had means well above 60 in both scales, indicating that another determiner (acquiescence, the tendency to agree with a plausible statement; or social desirability, the tendency to agree with what seems to be socially correct) may be operating with these samples of teachers. Still another possible interpretation is that the attitudes in these areas are not in fact one-dimensional, but are more complex than this instrument seems to assume.

One additional significant variance-ratio on the TERP Attitude Scale was obtained. The main effect: field differentiated among the various fields of teaching. To understand the precise nature of the differences, Table 33 has been constructed to present the results of the Duncan New Multiple Range Test. As Table 33 reveals, the hierarchy (from high to low) of the means of the several fields of teaching for Factor A were: elementary, mathematics, science, social studies, and English. Only one of the possible ten differences proved by the Multiple Range Test to be significant; that was the difference in favor of the elementary as compared with English teachers. Two homogeneous subsets revealed by the test were: elementary, mathematics, science, and social studies as one homogeneous subset; and mathematics, science, social studies, and elementary as the second subset.

Table 33

Duncan's New Multiple Range Test Applied to the Differences Between Means for Teaching Fields of TERP Attitude Scale Factor A (Progressive, Permissive Educational Viewpoint)

Fields	English	Social Studies	Science	Mathematics	Elementary
Means	75.94	79.34	79.42	79.58	82.54

Any two means for fields not underscored by the same line are significantly different. Any two means for fields underscored by the same line are not significantly different.

Pupil Observation Report (POSR)

Pupils in a randomly selected class of the beginning teachers were asked to respond to a 38-item questionnaire referred to as the Pupil Observation Report (POSR). (Elementary teachers in self-contained classrooms were rated by the members of the class who were present on the day the instrument was administered.) A special Primary POSR Form was developed by the TERP Staff in a pilot study. The form was substantially the same with only a few substitutions where words might be considered, by the considered judgment of experienced primary teachers among the TERP Staff, to be difficult for the pupils. Special instructions were written and somewhat more time was devoted to making certain that the pupils understood the process of evaluation. In some of the first and second grade classes, the POSR was administered orally in small groups with several monitors to give careful supervision.

The number of pupils in the classes ranged from 8 to more than 50, with a median of 24. The responses to the 38 items were punched on data cards, and a special computer program was written to generate the five factors found by Veldman and Peck,(1963),the authors of the POSR, to compose the factor structure.

Following the generation of the five factors from the original data, the teacher's scores on each of the five factors were obtained by deriving the arithmetic mean of the class. Thus, a total of five scores for each of 470 teachers was obtained from analysis of approximately 12,000 pupils to the 38-item instrument. Although total variability was reduced by this process, the result was a group of five very stable measures. The factor means, however, exhibited considerable variability as indicated by the error mean squares shown in Table 34.

The number of items in the five factors varied from 2 to 16, and the total possible scores (maximum per item being four) ranged from 8 for Factor V (Democratic procedure) to 64 for Factor I (Friendly, Cheerful, Admired). Factors II (Knowledgeable, Poised) and III (Interesting, Preferred) contained 8 items each for a maximum possible score of 32. Factor

IV (Strict control) had 4 items and the maximum score was 16.

Tables 34 and 35 present the variance ratios and the adjusted means for the main effects of the POSR variables. That the pupils as a whole perceived the beginning teachers rather favorably is indicated by comparing the obtained means as a ratio of the total possible score. The total (unadjusted) means for the five factors were as follows: I, 52.26; II, 27.17; III, 24.00; IV, 13.10; V, 5.53. The corresponding maximum possible scores were: I, 64; II, 32; III, 32; IV, 16; and V, 8. The obtained means expressed as ratios of the total possible score were: I, 81.6; II, 84.9; III, 75.0; IV, 81.8; and V, 81.9. These ratios being directly comparable, not only do the teachers appear to be favorably perceived by their pupils, but an interesting order of favorableness emerges. Factor II (Knowledgeable, Poised), a factor related to cognitive abilities and skills is viewed as most favorable, whereas Factor III (Interesting, Preferred) is clearly the least admired behavior dimension. The other three appear to be viewed at about the same level of favorableness.

Two significant differences for main effect: sex were found, both of which favored the women teachers. These were Factor I (Friendly, Cheerful, Admired) and Factor III (Interesting, Preferred). According to Veldman and Peck, these factors are somewhat similar to the Ryans X_o and Z_o dimensions of the COR (or the TCS X_{co} and Z_{co} scales). Four of the five means favor women, the single exception being Factor IV (Strict control). (Three differences were nonsignificant).

No significant differences among the five POSR variables were found for the main effect: certification status. Although the obtained differences were not sufficient to permit rejection of the hypotheses of no differences, three of the five directions favored professional and in two variables, provisional teachers received a higher mean rating by the pupils. Professional teachers were higher in Factors II, IV, and V, which are Knowledgeable, Poised, Strict control, and Democratic procedure respectively, while provisional teachers were rated better on Friendly, Cheerful, Admired, and Interesting, Preferred.

Table 34

Summary of F-Values for Analysis of Variance of the Pupil Observation Report[a]

Source of Variation	df	Factors I	 II	 III	 IV	 V
Main Effect						
Sex	1	5.05*	3.61	5.25*	1.88	2.92
Certificate	1	.14	.27	.35	1.40	.02
Field	4	1.26	.94	4.33**	.82	2.61*
Place of College Training	1	5.99*	.95	3.57	.07	2.63
Interaction Effect						
Sex x Cert.	1	.46	.08	.03	.28	1.03
Sex x Field	4	2.69*	.50	2.89*	1.20	1.56
Sex x Place	1	.00	.12	.18	.11	.05
Cert. x Field	4	1.01	.90	1.42	.44	1.12
Cert. x Place	1	.34	.02	.05	.01	.03
Field x Place	4	.44	.43	.30	2.35	1.05
Error (df and Mean Square)[b]	419	28.9	12.2	9.7	6.5	.73

*Significant at .05 level.
**Significant at .01 level.

[a] The names of the specific column headings are given on page 47.

[b] The sums of squares for each main and/or interaction effect and for error may be obtained by multiplying the F-value times the degree(s) of freedom times the error mean square.

Table 35

Adjusted Means of the Main Effect Subclasses for the Pupil Observation Report

Source of Variation	Factors				
	I	II	III	IV	V
Sex					
Men	50.9	26.5	23.2	13.5	5.55
Women	52.3	27.3	24.0	12.2	5.38
Certificate					
Professional	51.5	27.0	23.5	13.3	5.47
Provisional	51.7	26.8	23.7	12.3	5.45
Field					
Elementary	51.2	26.6	24.8	12.6	5.62
English	50.7	26.4	23.1	12.0	5.43
Mathematics	51.4	27.5	22.9	13.6	5.31
Science	52.1	26.9	23.3	13.8	5.32
Social Studies	52.6	27.2	23.7	12.0	5.63
Place					
Georgia	52.3	27.1	23.9	12.9	5.54
Non-Georgia	50.9	26.7	23.3	12.7	5.39

Two significant differences were obtained for the main effect: field on the *POSR* variables. Tables 36 and 37 present the results of the New Multiple Range Test applied to the differences in the five means for the fields. Two homogeneous subsets were obtained for Factor III (Interesting, Preferred).

As disclosed by Table 36, the elementary teachers comprised one unique field, and the secondary fields in descending rank order (high to low) were social studies, science, English, and mathematics. Some of these differences were quite small. Although it is not the function of this description to explain why such a difference favored the elementary as compared with the subject fields, the point could be made that this result may reflect real differences between the two levels (elementary and secondary), *or* it could perhaps reflect the growing independence and more critical awareness of secondary pupils.

Table 37 presents the results of the New Multiple Range Test applied to the differences between means for the teaching fields of the Factor V (Democratic procedure). These results are presented to the third decimal place because the highest possible score was 6, and the means were so close that less than .01 of a point separated two subgroups. Of the possible ten differences when the five groups were taken as pairs, only three of these differences were significantly above zero. These pairs were: social studies greater than science; elementary greater than science, and elementary greater than mathematics. It would appear anomalous that social studies teachers with the highest mean did *not* differ significantly from mathematics teachers, but were above science teachers. The apparent contradiction can readily be explained in terms of the very small difference (.004) between science and mathematics teachers and the small samples. The mathematics teachers may also have had greater variability in this variable, which would have the effect of increasing the standard error, in turn reducing the value of the significance ratio. The elementary teachers, who were only .002 of a point below the social studies teachers, comprised a considerably larger group (N = 123 in this analysis) as compared with the smaller sample sizes ranging from 75 to 87 for the other fields

Table 36

New Multiple Range Test Applied to the Differences Between Means for Teaching Fields of Pupil Observation Report Factor III (Interesting, Preferred)

Fields	Mathematics	English	Science	Social Studies	Eleme
Means	22.95	23.06	23.29	23.69	24.

Any two means for fields not underscored by the same line are s ficantly different. Any two means underscored by the same line ar significantly different.

Table 37

New Multiple Range Test Applied to the Differences Between Means for Teaching Fields of Pupil Observation Report Factor V (Democratic Procedure)

Fields	Mathematics	Science	English	Elementary	Social Studies
Means	5.313	5.317	5.426	5.629	5.631

Any two means for fields not underscored by the same line are significantly different. Any two means underscored by the same line are not significantly different. A broken line indicates that a smaller difference may be significant whereas a greater difference may be nonsignificant, either because of smaller subsample sizes which reduces the standard error or because of smaller variability of a subsample, which may have the same effect. (In Table 37, for example, social studies teachers differed from science teachers but not mathematics teachers; mathematics and science teachers differed from elementary teachers, but not social studies teachers. Science teachers differed from social studies and elementary, but not English and mathematics teachers, while English teachers were homogeneous with the other four subsets.)

Place of college training produced one significant difference in the analysis of the POSR data. Georgia-trained teachers were perceived by their pupils to be higher in Factor I (Friendly, Cheerful, Admired). This finding could perhaps be partially explained by the familiarity of Georgia-trained teachers, who are most likely to be products of the Southern subculture, more familiar with local mores, and are able to communicate with somewhat more understanding than persons less familiar with the unique Southern folkways. Friendliness is somewhat characteristic of the Southern subculture as compared with the general American culture. The fact that many of the non-Georg teachers came from proximate Southern states would weaken the argument that pupils perceive Georgia teachers as more friendly because of the Southern subculture. For whatever reason, Georgia teachers were rated by their pupils as significantly more "friendly, cheerful, and admired."

Two significant interactions, both involving sex-by-field, were revealed by the analysis of variance of the POSR data. Figures 9 and 10 have been constructed to depict these interactions. Figure 9 reveals that women elementary teachers and men social studies teachers were the two highest subgroups on the POSR Factor I, Friendly, Cheerful, Admired. The differences between men and women were greatest (favoring women) in the elementary and English fields. Women were also perceived more favorably by the pupils of science teachers, but not by so wide a margin. Both men and women mathematics teachers were perceived almost precisely the same (a difference of .07 favoring men), while men social studies teachers were perceived more favorably than women social studies teachers by a difference of 1.00. The differences with the magnitudes expressed in descending order and the direction indicated as men-minus-women (with a plus indicating a more favorable score for men and a minus sign more favorable for women) were as follows: elementary, -3.06; English, -3.36; social studies, 1.00; science -.67; and mathematics, .07. The main effect for field was not significant, but women as a whole without regard to field were perceived by pupils as significantly more friendly, cheerful, and admired. As Figure 9 indicates, the wide margin in the elementary and English fields counteracted the difference favoring social studies men teachers. The very slight difference between men and women teachers probably had a negligible main effect but contributed

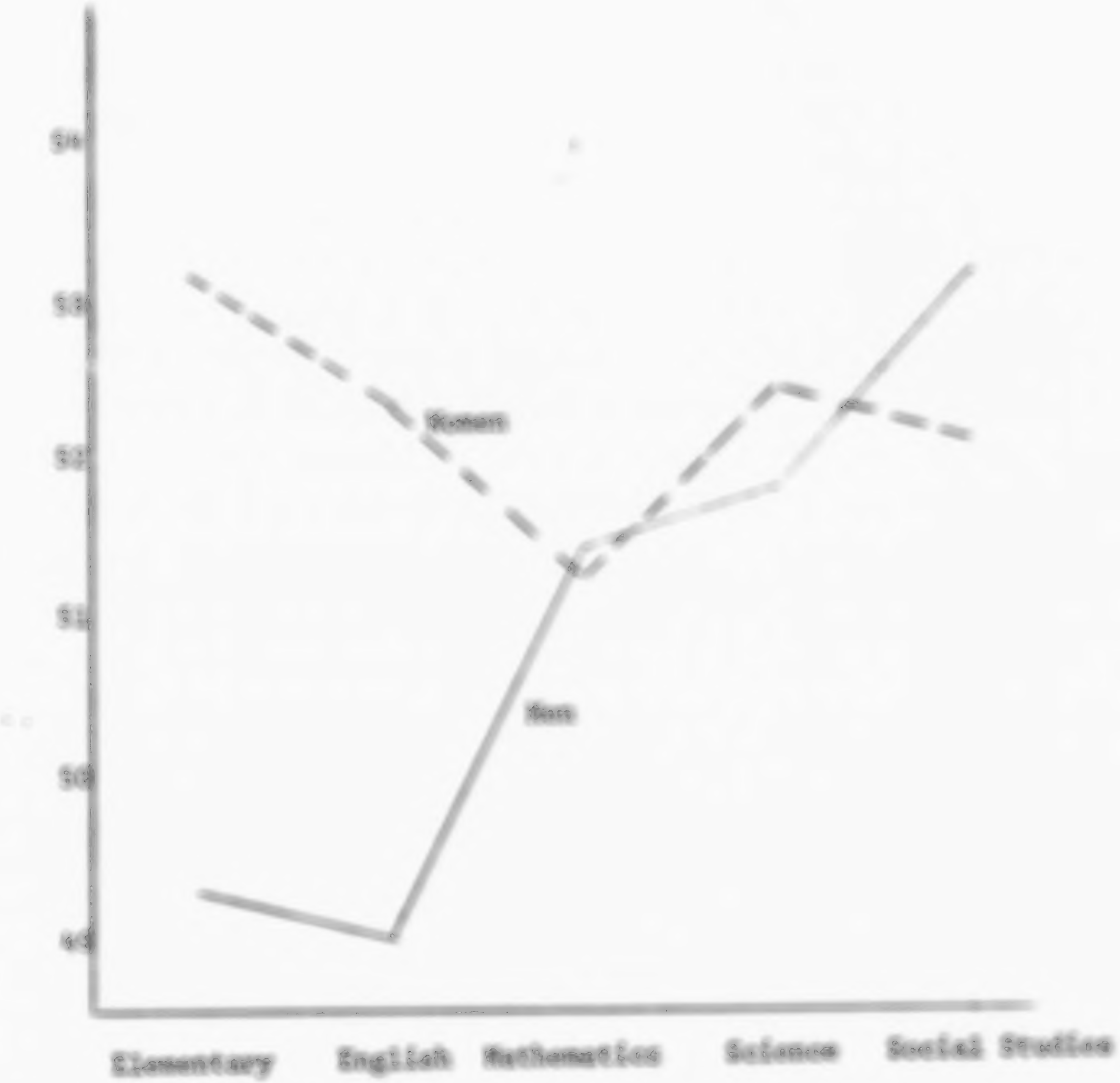


Figure 9. Interaction of Sex-by-Field of POSR Factor I, Friendly, Cheerful, Admired.

Adjusted Means

Field	Elementary	English	Mathematics	Science	Social Studies
Men	49.31	49.02	51.41	51.78	53.13
Women	53.17	52.38	51.34	52.46	52.13
Total	51.24	50.70	51.37	52.11	52.63

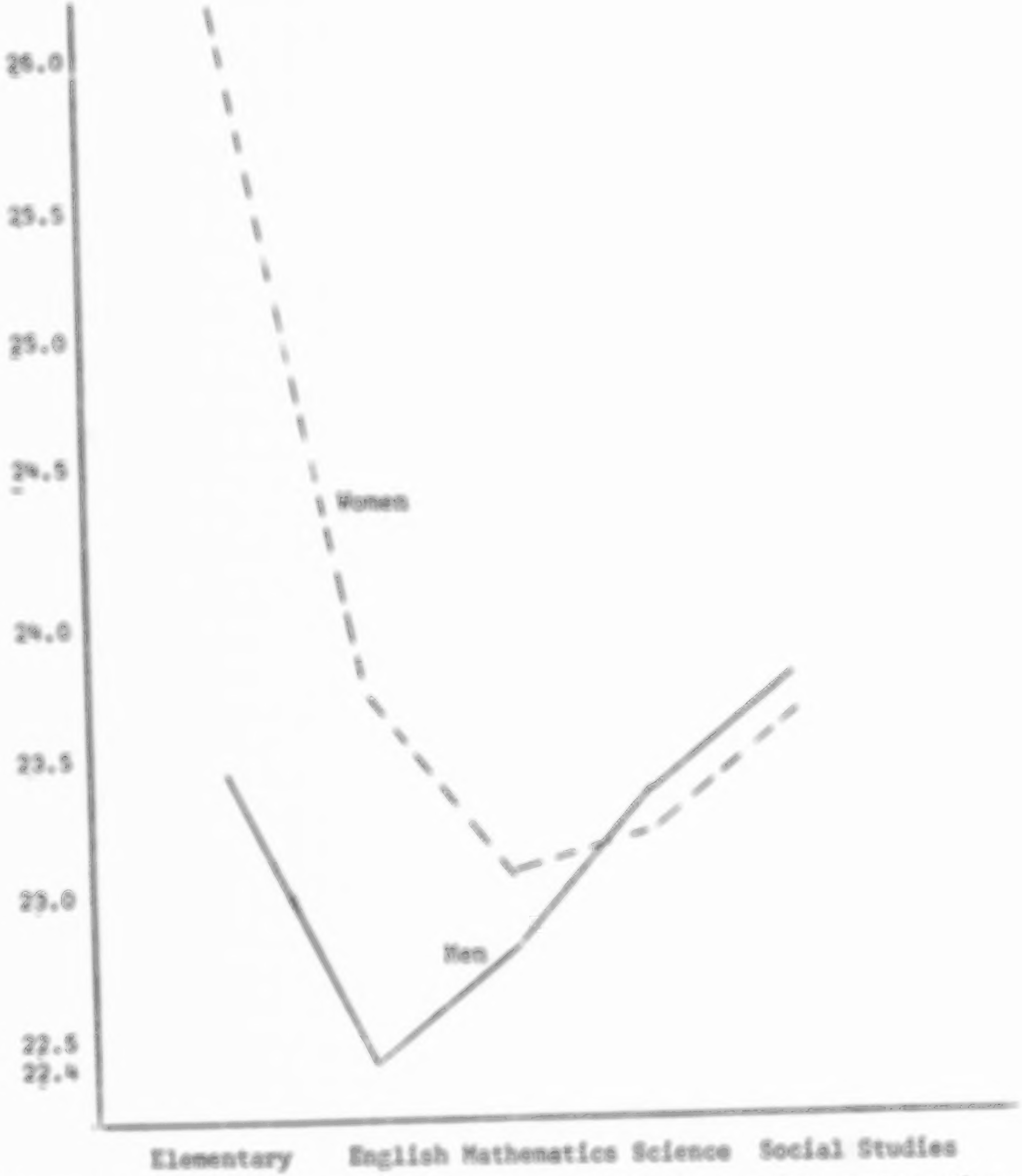


Figure 10. Interaction of Sex-by-Field of POSR Factor III, Interesting, Preferred.

Adjusted Means

Field	Elementary	English	Mathematics	Science	Social Studies
Men	23.46	22.41	22.81	23.36	23.76
Women	26.18	23.71	23.09	23.23	23.61
Total	24.82	23.06	22.95	23.29	23.69

to interaction by being quite different from some of the other differences for fields.

Figure 10 reveals a somewhat similar pattern for the sex-by-field interactions for POSR Factor III (Interesting, Preferred). Women elementary teachers were perceived by their pupils so much more favorably than any of the other nine subgroups that there is no doubt that this large difference explained the main effect differences for both sex and field. Women were perceived more favorably as being interesting and preferred not only as a whole (main effect), but by a wide margin (2.72) in elementary, considerable difference (1.30) in English, and a small amount (.28) in mathematics, (.13) in science and in social studies (.15).

Classroom Observation Record (COR)

The Classroom Observation Record (COR) was developed by Ryans and his associates in direct estimation by carefully trained observers of certain teacher behaviors. In addition to 22 one-dimensional bi-polar rating scales developed by Ryans, Beery (196) added six dimensions to measure the behaviors associated with use of teaching media, materials, and methods. This 28-item scale was used by teams and individual staff members in the Teacher Education Research Project to derive measures of the direct classroom behavior of the beginning teachers. The description of these factors and of the training sessions, as well as the schedule of observations, are given in Chapter 3. Three visits were made to each teacher, each visit being of at least one period or one hour's duration. These visits came in the fall, winter, and spring. The first two visits were made by a team of two observers; on the third visit, only one team member visited, at which time he administered the POSR to the pupils of one of the teacher's classes. This program of visitation permitted two types of reliability measurement: (1) inter-observer, intra-occasion reliability, consisting of correlations on the 28-scales of the two independent ratings at the same occasion; there were two sets of these reliability correlations, one at each of the first two occasions; (2) an intra-observer, inter-occasion reliability, consisting of correlations of the ratings on the 28 scales of the same observer on two separate occasions. Because of the fact that the teacher's behavior was subject to change and the observer's perception was also undergoing a process of development, it was expected that the inter-occasion reliabilities would be considerably lower than the intra-occasion, inter-observer *r*'s.

Table 38 presents the reliability coefficients on the 28 scales for the two separate occasions (inter-observer) and the same observer for two different occasions (in this instance, Occasion 1 and Occasion 2). As expected, the observers agreed more in their ratings of the behavior of the teacher on the same occasion than did the same observer on separate occasion. The median *r* for the first visit between the two observers was .62, with a range from .52 to .69. The median for the second visit was .62, with a range from .53 to .69. As may be expected, higher correlations seemed to be associated with those scales which are related to observable characteristics, those most easily translated into perceptible, overt behavior (such as Dull, stimulating or Good discipline). Lower correlations seemed to be a function of the trait-like characteristics, those less easily observable and more likely to vary with the "eye of the beholder" (i.e., determined by more idiosyncratic or unique sets of the observer (such as Partial or fair, Attractive or unimpressive). The median *r* for the same observers on different occasions for the 28 scales was .41. Again the low *r*'s were associated with trait-like characteristics, with higher correlations more apparent for overt behavior-type items, such as maintaining an attractive classroom.

The correlations obtained in this study were quite similar to those obtained by Ryans (1960, p. 106-107), except that Ryans reported the correlations with the Teacher Behavior Patterns X_o, Y_o, and Z_o. The part-whole correlations of selected scales (as reported by Ryans) were somewhat spuriously high. Three pupil behaviors and seven teacher behaviors were observed but were not included within the Ryans Teacher Behavior Patterns X_o, Y_o, and Z_o, and the Beery Teacher Behavior Pattern M_o. Because it was deemed that these behaviors were important, even though perhaps multi-dimensional, the scores obtained from the five observations on these scales were included in the analysis. These variables were termed P_o (Pupil Behaviors observed) and T_o (Teacher Behaviors observed), and were made up of the

Table 38

Correlations Between Observers' Rating of 470 Beginning Teachers in Georgia, 1965-67

Characteristic	Different Observers First Visit	 Second Visit	Same Observer Visit 1 & 2
PUPIL BEHAVIOR			
1. Apathetic	.63	.69	.37
2. Obstructive	.65	.64	.42
3. Uncertain	.58	.53	.38
4. Dependent	.62	.61	.39
TEACHER BEHAVIOR			
5. Partial	.52	.57	.39
6. Autocratic	.63	.64	.38
7. Aloof	.61	.62	.41
8. Restricted	.60	.58	.42
9. Harsh	.63	.58	.47
10. Dull	.69	.69	.49
11. Stereotyped	.66	.65	.37
12. Apathetic	.63	.64	.44
13. Unimpressive	.52	.56	.47
14. Evading	.62	.60	.41
15. Erratic	.57	.58	.44
16. Excitable	.59	.56	.49
17. Uncertain	.59	.55	.41
18. Disorganized	.59	.58	.35
19. Inflexible	.61	.59	.39
20. Pessimistic	.60	.59	.41
21. Immature	.63	.61	.42
22. Narrow	.62	.62	.40
23. Teachers Knowledge/Skills	.62	.64	.35
24. Individual Differences	.62	.61	.34
25. Good Discipline	.69	.69	.46
26. Study Habits	.69	.59	.45
27. Attractive Classroom	.62	.64	.55
28. Instructional Materials	.66	.62	.46

scales listed below:

Pupil Behaviors observed	Teacher Behaviors observed
Apathetic-alert	Partial-fair
Uncertain-confident	Apathetic-alert
Dependent-initiating	Unimpressive-attractive
	Uncertain-confident
	Inflexible-adaptable
	Immature-integrated
	Narrow-broad

In addition to the six dimensions made up of part scores of the COR, a total composite score for each teacher was obtained by summing the six parts. Observers were cautioned not to make a single summary evaluation, but it was deemed that a summary score derived by this process of combining the parts in an inductive, integrative, empirical process would be more valid than a single, deductive, "halo-type" evaluation.

Since these seven COR variables involved different numbers in their composition, they were divided by selected constants to make them comparable. The result was to produce a range of 1 to 7 with a middle value of 4, which could be considered as an "expected value" (that is to say, an "average" value). Another advantage of transforming the scores to a common base is to permit comparability from scale to scale.

Tables 39 and 40 present respectively the variance ratios and adjusted means of the transformed COR dimension and total scores. The most noteworthy outcomes of this analysis are the four significant differences for main effect: sex and the four significant main effect differences for certificate. There were no significant differences for field and none for place of college training. There were also no significant interaction effects.

Women were seen by the trained observers to be significantly more stimulating, imaginative (Z_o), more competent in the application of teaching media, materials, and methods (M_o), unclassified teacher behaviors (as described above) (T_o), and in the total COR score. The means for women were also higher in the other three variables but not significantly higher.

Table 39

Summary of F-Values for Analysis of Variance of the Classroom Observation Record

Source of Variation	df	X_o	Y_o	Z_o	M_o	P_o	T_o	COR Total
Main Effect								
Sex	1	2.92	3.44	7.14**	6.61*	2.24	6.11*	5.91*
Certificate	1	3.72	8.13**	3.23	5.60*	3.54	5.54*	7.17**
Field	4	.04	1.21	.33	1.04	1.16	.25	.55
Place of College Training	1	.60	.83	2.19	3.27	.70	.52	2.06
Interaction Effect								
Sex x Certificate	1	1.50	2.33	.61	.82	.16	3.18	2.48
Sex x Field	4	.95	1.02	1.12	1.29	1.41	.95	.89
Sex x Place	1	1.00	1.32	1.61	.46	.64	.16	1.07
Cert. x Field	4	.64	.60	2.06	.71	1.49	.56	.86
Cert. x Place	1	.07	.05	.20	.03	.01	.02	.01
Field x Place	4	1.77	1.32	.79	1.26	.56	1.80	1.55
Error (df and Mean Square)[b]		416	399	639	586	147	734	11,486

*Significant at .05 level
**Significant at .01 level

The names of the specific column headings are given in the accompanying text

[b] The sums of squares for each main and/or interaction effect and for error may be obtained by multiplying the F-value times the degree(s) of freedom times the error mean square.

Table 40

Adjusted Means of the Main Effect Subclasses For the Classroom Observation Record

Source of Variation	X_o	Y_o	Z_o	P_o	T_o	M_o	COR Total
Sex							
Men	4.84	4.93	4.17	4.46	4.89	4.39	4.67
Women	5.00	5.10	4.46	4.60	5.11	4.62	4.88
Certificate							
Professional	5.00	5.13	4.39	4.61	5.09	4.61	4.88
Provisional	4.84	4.89	4.24	4.45	4.91	4.41	4.67
Field							
Elementary	4.91	5.01	4.37	4.66	4.99	4.61	4.80
English	4.95	5.05	4.41	4.52	5.06	4.59	4.84
Mathematics	4.92	5.05	4.30	4.57	5.04	4.52	4.82
Science	4.91	4.93	4.27	4.31	4.95	4.44	4.73
Social Studies	4.90	4.93	4.24	4.39	4.93	4.38	4.67
Place							
Georgia	4.95	5.06	4.41	4.56	4.94	4.58	4.83
Non-Georgia	4.89	4.97	4.23	4.49	4.97	4.43	4.72

The descriptions of the COR variables appear in the accompanying text.

A similar pattern emerged when the main effect: certificate is examined. Professional teachers were seen by the trained observers to be more responsible and businesslike (Y_o), more skillful in the use of teaching media, materials, and methods (M_o), in unclassified teacher behaviors (T_o), and in the total COR score. As in the main effect analysis for sex, the other three differences favored the professional teachers, but the differences were not significant.

When one reviews the means listed in Table 40 and compares the several characteristics, it is evident that Behaviors Y_o (systematic, businesslike), and T_o (unclassified teacher behaviors) were the areas in which the teachers received the highest means. Next in order came X_o (warm, friendly), P_o (pupil behaviors), M_o (use of media and materials) and finally Z_o (stimulating, imaginative) which has the lowest means for this group. Since the total COR was a composite of the other six sets of behavioral characteristics, it occupies an intermediate position and is not included in this brief analysis.

In view of the significant differences for sex and for certificate, it seems remarkable that there is no significant interaction for sex-by-certificate. Since it has been previously pointed out that the professional teachers had a higher percentage of women and the provisional teachers had a disproportionately larger number of men than to be expected, the significant main effect differences for sex and certificate in the absence of significant interactions becomes even more noteworthy. The superiority of women does not depend on certification status, nor does the advantage of professional certification over provisional certification depend upon whether a woman or a man is the teacher involved. The advantage in both instances is present "across the board."

Summary of Least Squares Analysis

Since a total of 33 teaching personality and behavior variables have been analyzed in the least-squares analysis, it may be of some value to summarize the results. In view of the relatively large number of variables, it is possible to apply some nonparametric statistics - in this instance, the sign test for the dichotomous effects and the chi-square test for field main effects, to the aggregate of the 33 separate analyses. The sign test as used in this analysis is a test of the hypothesis that in 33 analyses there should be an equal number of differences favoring each of the several conditions. The alternative hypothesis is that a greater number of differences should occur in favor of a given treatment or subset. Table 41 is a summary of the main effect significant and nonsignificant differences emerging from the least-squares analysis with an indication of the direction of the difference (in the case of the three dichotomous main effects) and of the highest mean obtained for a field subgroup. The most impressive finding evident in the summary table are the 13 significant sex differences (10 of which favored women) and the 11 significant differences for certification status (all of which favored professional teachers). A less obvious picture emerges for the main effects of field and place. Another important finding is the lack of significant interactions, where only five of a possible 198 were obtained.

The significant sex differences favoring women included the Motivator Role of the TPQ, the X_{co} (Warm), the Y_{co} (Systematic, Businesslike), and Z_{co} (Stimulating, Imaginative) dimensions of the TCS, Factor I (Friendly, Cheerful, Admired) and Factor III (Interesting, Preferred) of the POSR, and Z_o (Stimulating, Imaginative), M_o (Use of Materials, Media, Methods), T_o (Unclassified teacher behaviors), and COR Total Score. Significant differences favoring men were found for the Disciplinarian Role of the TPQ, the Self-Acceptance Scale of the IAV, and the S_{co} (Emotional stability) dimension of the TCS. Since 21 out of 31 total differences favored women, a sign test was applied to the data to test the hypothesis that there were no differences between the men and women for all 31 variables. After applying the correction for continuity, and using the normal probability approximation to the binomial distribution, the obtained z value was 1.79. Since this value lies within the region of non-rejection for a two-tailed test (.05 level), the hypothesis of no differences between men and women could not be rejected. Most of the variables on which the women had higher means, however, were rather important variables (especially the major

Table 41

Summary of Significant and Nonsignificant Differences Emerging from the Least-Squares Analysis of Variance of 33 Teacher Personality and Behavior Characteristics

Source of Variation	Significant Differences	Significant Direction	Non-Significant Differences	Non-Significant Direction
Main Effects				
Sex*	13	3 + men 10 + women	18	7 + men 11 + women
Certificate	11	11 + professional	22	12 + professional 10 + Provisional
Field	14	7 + elementary 3 + English 3 + mathematics 1 + social studies	19	5 + elementary 3 + English 5 + mathematics 2 + science 4 + social studies
Place	4	4 + Georgia	29	19 + Georgia 10 + Non-Georgia
Interactions				
Sex x Cert.	1		32	
Sex x Field	3		30	
Sex x Place	0		33	
Cert. x Field	0		33	
Cert. x Place	1		32	
Field x Place	0		33	

*The analysis of variance for sex of the Self-Description Scale of the Index of Adjustment and Values, the Factor A (Progressive) of the TERP Attitude Scale, and the P_o (Pupil Behaviors) of the Classroom Observation Record revealed that the means for men and women were equal to the third decimal; for that reason, these tests were regarded as ties and are not included in this summary. (The F value in both instances were 0.00.) A total of 28 significant main effects (of a possible 132) were obtained, and a total of 5 of a possible 198 interaction effects were obtained.

dimensions of the TCS, POSR, and the COR). On this basis it may be appropriate to reject this null hypothesis and look with more favor on the alternative hypothesis that beginning women teachers are superior on the average to beginning men teachers.

A summary of the significant differences with respect to certification status indicates a total of 11 variables which discriminated in favor of professional teachers, with no significant differences in favor of provisional teachers. The 11 differences in which professional teachers had significantly higher means were the Counselor Role of the TPQ, the X_o (warm, friendly), R_{co} (favorable opinions of pupils), R_{1co} (favorable opinions of democratic practices), and Q_{co} (favorable opinions of administrators), Factor A (Progressive Attitudes) and A - B (Progressive minus Traditional) for the TERP Attitude Inventory, and four dimenisons of the COR - Y_o (Systematic, Businesslike), M_o (Skillful use of Materials, media, and methods), T_o (Unclassified teacher behaviors), and the COR Total Score. Ten of the 22 nonsignificant differences favored provisional teachers, with 12 favoring professional teachers. Among the 10 scales which favored provisional teachers were some scales which suggested a more conservative educational viewpoint, such as the Referrer and Disciplinarian Roles of the TPQ, the B_{co} (learning-centered viewpoint - as contrasted to pupil-centered viewpoint) of the TCS, and the Factor B (Traditional Educational Attitude) of the TERP Attitude Scale. Somewhat surprising, perhaps, were the slightly higher nonsignificant differences in POSR Factors I and III favoring provisional teachers. When the sign test was applied to the direction of differences for the main effect certification, and the correction for continuity applied, a z value of 2.09 was obtained. Since this value was greater than 1.96 and thus falls in the region of rejection for a two-tailed test at the .05 level, it seems probable that the hypothesis of no significant differences for certification status should be rejected. Since all 11 differences favored the professionally certified, a more reasonable alternative hypothesis is that the professionally certified beginning teachers are superior (on whatever these characteristics purport to measure) than provisional beginning teachers.

When the data for fields are summarized totalling both significant and nonsignificant differences, the numbers of variables favoring a particular field were as follows: elementary, 12; English, 6; mathematics, 8; science, 2; social studies, 5. (Some of these differences were relatively small, and even significant differences did not involve every field.) A chi-square test of independence resulted in a value of 8.36. With four degrees of freedom, the hypothesis of independence could not be rejected. It seems reasonable to infer that no single field has more than its random share of superior teachers within the beginning teacher population.

Only four significant differences for "place of college training" were found, all being favorable to Georgia-trained teachers: Motivator and Disciplinarian Roles of the TPQ, Self-Description Scale of the IAV, and Factor I (Friendly, Cheerful, Admired) of the POSR. Nineteen of the 29 nonsignificant differences favored teachers who had received their training in a Georgia college. Applying the sign test, with the correction for continuity, gave the value of z as 2.09, which falls in the region of rejection for a two-tailed test at the .05 level. Since most of these differences, however, were nonsignificant and some were rather small, the alternative hypothesis does not have the strength that is indicated by the sign test for sex and certificate.

Three of the five interactions involved differences between men and women for the several fields. For the Ideal Self of the IAV, and on the POSR Factors I (Friendly, Cheerful, Admired) and III (Interesting, Preferred), it was found that men and women did not have the same means for the several teaching fields. Usually, the elementary and English teachers tended to differ more between the two sex groups than did the other groups.

Responses of Beginning Teachers to the Georgia Study of Beginning Teachers Questionnaire (GBTQ)

In Sections 2 and 3 of Chapter 4, a summary of responses of a sample from the September 1964 Georgia beginning teacher population was presented. Greater attention was devoted in Section 2 to discussing results of the analysis of responses according to the independent variable, certification status, because certification has been the key variable in this entire TERP study. A conceptual model (Figure 5, page 69) was presented in which the professional teachers were conceived to be considerably different from provisional teachers in the area of "choice of vocation," somewhat less different in their perceptions of the "teacher preparation program," not very much different in their perceptions of their "beginning teaching experience," and again diverging in their "future plans for teaching as a career." The model was apparently validated by the empirical findings. Because the approach seemed to be fruitful, the TERP staff decided that the samples of professional and provisional teachers who were to be visited as part of the "depth" study should also be asked to respond to the GBTQ. From one point of view, therefore, this group of teachers may be seen as a cross-validation of the September 1964 sample. The major difference between the two groups is that the "depth" sample consisted of those professional and provisional teachers teaching in the fall of 1965 and 1966 who agreed to participate in the study. Teachers in the first (1964-65) sample included representatives from other fields, such as vocational, art, music, and business teachers, whereas only five fields were represented in the depth study. Another important restriction is the relative over-representation of the provisional teachers. In view of the central hypothesis of this study, this fact is regarded as a strength rather than a limitation. If the original conceptual hypothesis is confirmed by the depth samples, there should be important implications for recruiting, education, and placement practices.

As in the previous study, the findings are presented in a series of tables. The independent (row) variables are the same as in the least-squares analysis: three of these variables are two-class variables or dichotomies: sex, certification status, and place of training. The fourth consists of five categories, the teaching fields of elementary, English, mathematics, science, and social studies. The dependent (column) variables of the GBTQ consist of responses to 94 questions, 90 of which are pre-categorized (with some provision for "other" or "write-in" responses) and 4 of which were open-ended questions. These 94 items were divided into four major categories: (1) choice of vocation; (2) teacher preparation program; (3) teaching experience; (4) future plans for teaching. The resulting analysis then consists of a 4 x 4 matrix of significance tests. Because of the enormous amount of information generated by the chi-square contingency analysis, it is not feasible to include the frequency counts. The major emphasis in the discussion which follows is on an internal analysis of responses, rather than the description of typical response of the entire group. An attempt, however, to provide some indication of the most typical responses within the dependent variables has been made. The complete computer output with frequency counts, table percentages, row percentages, column percentages, chi-square values, contingency coefficients, and other information is available in the central office of the Teacher Education Research Project. More specific information may be had upon inquiry to that office.

Choice of Vocation

Table 42 presents the chi-square tests of significance for the five choice of vocation items of the GBTQ. For the main effects of certification and field, responses were significantly different on all five items. Four of the five differed according to the sex of the respondent. Place of college training failed to differentiate groups on all five responses.

Sex of Respondent as Related to Choice of Vocation. Upon analyzing the frequency counts, it became evident that women not only choose teaching typically much earlier than men, but teaching is more likely to be their first choice of vocation by a considerable margin. Women are far more likely to be influenced by parents and elementary teachers, with high school teachers, college teachers, and friends being more influential in encouraging men to teach. Both men and women gave "desire to work with children" as the most important internal factor in choosing teaching, with over 50 per cent giving that reason and "interest in the subject" as influential. Although nonsignificant, more women than men included these two reasons (64 per cent women as compared with 52 per cent men.) At the time of graduation, teaching was regarded as more attractive to the women respondents than to the men. Women were represented proportionately more at the extremes of satisfaction than the men (who seemed mostly to be

Table 42

Summary Table: Chi-Square Tests of Significance

for Items of GBTQ

		Independent Variables			χ^2
Item	df[a]	χ^2 Sex	χ^2 Cert.	χ^2 Field	Place of College Training
1. When did you first consider teaching as a career?	6	46.2**	129.0**	38.45*	3.52
2. Was teaching your first choice of career?	1	18.9**	56.98**	10.75*	0.83
3. Which external factor in the list below influenced you most to choose teaching as a career?	6	21.8**	26.93**	65.22**	10.40
4. Which internal factor in the list below influenced you most to choose teaching as a career?	5	9.74	17.69**	60.85**	3.20
5. How did you regard teaching as a career for yourself at the time you were graduated from college?	4	22.2**	58.34**	29.94*	3.15

*Significant at .05 level
**Significant at .01 level

[a] The degrees of freedom listed are for the dichotomous independent variables of sex, certification status, and place of training. To derive the df for field, multiply the number given for the particular item by 4. Five fields (rows) constitute (r - 1) degrees of freedom, to be further multiplied by (k - 1), one less than the number of columns in the dependent variable.

"indifferent"), but the proportion of women who were "very much satisfied" far outweighed the "very much dissatisfied" group (40 per cent as compared with 4 per cent). When the "satisfied" and "dissatisfied" categories for both men and women were combined, they represented 80 per cent of the entire sample.

Certification as Related to Choice of Vocation. As might be expected, the professionally certified teachers chose teaching as their vocation far earlier than did the provisional teachers, By the junior year of college, 81 per cent of T-4 teachers had chosen teaching, as compared with less than 35 per cent of B-4 teachers. In terms of the power of the significance test, this relationship was one of the strongest in the entire study. The uncorrected coefficient of contingency was .48, indicating a high degree of predictive efficiency for this single question. The results also have obvious implications for counseling and recruitment.

Another very strong relationship is revealed by the very high relationship between teaching as first choice and certification status. Seventy per cent of T-4 teachers chose teaching first, as compared with 34 per cent of B-4 teachers. The uncorrected coefficient of contingency was .35, indicating a moderate degree of predictability on this one question.

Elementary teachers, high school teachers, and parents influenced professional teachers proportionately more, whereas college teachers, friends, and counselors encouraged provisional teachers. Provisional teachers also gave proportionately more "other reasons." Professionally certified teachers indicated considerably greater interest in the subject as the most influential "internal" factor in their choice of teaching. Provisional teachers gave "security and prestige" and "make greatest contribution to society" more frequently. "Emulation of former teacher" was mentioned much more frequently by T-4 teachers than the B-4. Although the differences were small, slightly more provisional teachers (34.5 as compared with 32.9 per cent) gave "desire to work with children" as their first choice. (On this point, the "depth" sample varied slightly from the 1964-65 sample.)

Although 80 per cent of the entire sample regarded teaching as "fairly attractive" or "highly attractive" at their graduation from college, 92 per cent of professional teachers gave one of these responses as compared with 65 per cent of provisional teachers. Six per cent of T-4 teachers as compared with 17 per cent of B-4's gave one of the "unattractive" responses. This strong relationship resulted in a contingency coefficient of .34 indicating moderate predictability with this single item.

Field as Related to Choice of Vocation. Turning to field as a source of response variation, all five items differentiated the teaching field groups. As might be expected, elementary teachers made relatively early choices, nearly half having made the decision before high school graduation. Mathematics teachers (44 per cent by high school graduation) made the next earliest decisions, followed by English, social studies, and science teachers in that order. Over 40 per cent of science teachers did not make the choice until the senior year of college or afterward, as compared with 17 per cent of English teachers.

English teachers (62 per cent) followed in order by social studies (58), mathematics (54), elementary (52), and science (38), stated that teaching was their first choice as a vocation.

Teachers gave numerous "other" reasons as external influential factors; except for elementary teachers, "other reasons" was the modal response (by approximately one-fourth of each group.) Elementary teachers gave as their most frequent response to this item "elementary teachers". Friends also influenced over 20 per cent of elementary teachers, and also were mentioned as most influential (over 20 per cent) by social studies teachers. High school teachers were mentioned most frequently by mathematics teachers. College teachers were mentioned by 25 per cent (the next most prevalent factor after "other" reasons), while English teachers were influenced most by their parents to enter teaching. College teachers and counselors were mentioned as second most important influences by mathematics and social studies teachers. This item was moderately predictive, indicating a strong relationship (very powerful rejection of the null hypothesis) and an uncorrected contingency coefficient of .35.

Interest in the subject was the modal response as an internal influence by science, mathematics, and English teachers. Elementary teachers (55 per cent) and social studies teachers (30 per cent) chose "desire to work with children" most frequently. Although 60 per cent of the total sample chose either of these two internal factors as most influential, the feeling of making the greatest contribution to society was next most frequent for all fields, these three reasons accounting for approximately 85 per cent of all choices. The large chi-square value indicated a powerful relationship, confirmed by the moderate contingency coefficient of .35.

Although 80 per cent of the total group indicated that teaching was either "fairly attractive or very attractive" at the time of graduation from college, teaching field made a difference in the responses. The rank order indicating "attractiveness" (combining the two "attractive" categories) were mathematics, 88 per cent, followed by English (84), social studies (77.2), science (76.9), and elementary (75). Most indifference was indicated by science teachers (14), followed by social studies (11), elementary (10), mathematics (6), and English teachers (2 per cent). In the combined "unattractive" response classes, the percentages were as follows: elementary (15); English (14); social studies (11); science (9); mathematics (6).

Place of Training as Related to Choice of Vocation. Place of college training did not discriminate the responses of the beginning teachers in this area: choice of vocation. Although teaching was regarded as somewhat more attractive to Georgia-trained teachers (82 per cent as compared with 75), and a smaller percentage of Georgia-trained indicated teaching as unattractive (10 as compared with 14), the numbers were not sufficiently different from the expected values to permit rejection of the hypothesis of no differences.

Teacher Preparation Program

This section of the GBTQ consisted of 38 items, all except one of which (Question 11 at the end of the section) called for an evaluation on a five-point scale of the satisfactoriness of various facets of the teacher preparation program. The results of the tests of significance for these 38 items for the four independent (row) variables are summarized and presented in Table 43.

As expected according to the conceptual model, the perceptions of the beginning teachers of the 1965-67 years were less differentiated in this section according to the independent variables than in the "choice of vocation" section. The independent variable: sex provided 11 significant and 27 nonsignificant tests. Certification status made a significant difference in responses on 18 items, did not differentiate on 20 items. Field of teaching made a difference significant from expectation in the case of 12 items, did not differ on 26 items, Place of college training resulted in four significant and 34 nonsignificant items.

Sex of Respondent as Related to Teacher Preparation Program. When responses of men and women were compared, the five responses to questions about the satisfactoriness of the teacher preparation program in the teaching personality area did not produce a significant difference. Most teachers indicated the program was either satisfactory or very satisfactory in this area. Fewer than 15 per cent of responses were in the "unsatisfactory categories"; less than 5 per cent in the 1 (d) "friendly disposition" and 1(e) "well-rounded life" items.

In the "general education" areas of the physical sciences, biological sciences, American culture, art etc., and ability to use English, three of the five items differentiated men and women. On knowledge of physical sciences, 34 per cent men rated the program as "very satisfactory" and 37 per cent "satisfactory" as compared with 17 per cent "very satisfactory" and 51 per cent "satisfactory" for women; 11 per cent of men thought the program was either "unsatisfactory" or "very unsatisfactory" as compared with 17 per cent of women. Women evaluated the "art, music, literature, and philosophy" as much more satisfactory than did the men; 36 per cent very satisfactory (22 for men); 9 per cent of women rated these areas as unsatisfactory as compared with 14 per cent men. Women considered that the teacher preparation program had provided them very satisfactory experiences developing their ability to use the English language effectively

(59 as compared with 34 per cent for men), while 9 per cent of men and 2 per cent of women thought the program unsatisfactory or very unsatisfactory. No differences were obtained in the relative frequencies for men and women in the areas of biological sciences and American culture.

Men and women did not differ in their perceptions of the program's adequacy in preparing them in the subject areas they were teaching. More than half of both men and women rated the program as very satisfactory, and 92 per cent men and 88 per cent women thought it either satisfactory or very satisfactory.

For the four items relating to understanding of children and youth, the independent variable: sex differentiated on one item only, that of "insight into causes of behavior." Among women, 78 per cent considered this aspect of the program to be either satisfactory or very satisfactory as compared with 66 per cent of men. "Neither satisfactory nor unsatisfactory" was the response of 24 per cent of the men, as compared with only 12 per cent of women. The other three items in this subsection (working with exceptional children, group work, and discipline) elicited reactions which were much less favorable (over one-third indicating the program was neither satisfactory nor unsatisfactory and substantial percentages indicating the program was unsatisfactory. The items did not, however, differ for men and women.

The subsection "understanding of the nature of the learning process" consisted of six items. The independence hypothesis for sex could be rejected for two of the six items: skill in pupil-teacher planning and skills in evaluating pupil growth and class procedures with pupils. In both instances, women evaluated the program as satisfactory in more-than-expected proportions, while men gave "neither satisfactory nor unsatisfactory" and one of the "unsatisfactory" categories. The most frequent response in both items was "satisfactory" (except for the "neutral" response for men on the item regarding pupil-teacher planning), a considerable minority indicated this area as unsatisfactory. Question 7 with three items pertained to knowledge of sources of teaching materials, and two of the three items differed for men and women. Two-thirds (67 per cent) of the women thought the program satisfactory (or very satisfactory) in providing knowledge of audio-visual materials with 55 per cent of men in these two categories. On the other hand, 45 per cent thought the program either was unsatisfactory or neither satisfactory nor unsatisfactory, as compared with 33 per cent women. Similar results were apparent for the item concerning community resources and materials, in which 58 per cent of women as compared with 46 per cent men rated the program as satisfactory, with 54 per cent men and 42 per cent women indicating the program related to knowledge of community resources as unsatisfactory or neither satisfactory nor unsatisfactory.

Question 8 concerning ability to use teaching materials effectively and Question 9 which contained five items related to knowledge and understanding of the community failed to differentiate men and women. Although for most items, the modal response was "satisfactory" to these items, substantial numbers of respondents indicated that the program was neither satisfactory nor unsatisfactory.

Seven items under the general heading "teacher preparation experiences" (which included laboratory experiences but did not exclude other professional education courses) resulted in three significant sex differences: student teaching, teaching methods courses, and professional practicums and seminars. Although 91 per cent of women and 72 per cent men indicated that student teaching was either satisfactory or very satisfactory, 16 per cent of men and 3 per cent of women said it was "neither satisfactory nor unsatisfactory" (they perhaps did not have the student teaching experience), and 12 per cent men and 6 per cent women thought that student teaching was unsatisfactory (7 per eent of men rating it very unsatisfactory). Women also rated teaching methods courses as more satisfactory with men found in higher proportions in the "neither satisfactory nor unsatisfactory" and "unsatisfactory" categories. The same pattern was true in the significant difference in perceptions of men and women of professional practicums and seminars. By way of description, when the entire group regardless of sex classification was considered, the combined two categories of "satisfactory" and "very satisfactory" in this subsection indicated the following percentages: student teaching, 86; observing teachers, 77; subject matter courses, 87; psychology courses, 73; teaching methods courses, 57; professional practicums and seminars, 47; and professional education courses, 49.

Question 11 in this section asked for suggestions for improving the teacher education programs. The responses were not significantly different when the independence hypothesis for the sex variable was tested. Since Table 43 reveals that the significance tests for certification and field were significant, the descriptions of the responses to this open-end question are considered at those points.

Certification Status as Related to Teacher Preparation Program. The chi-square values listed in Table 43 under the rubric "certificate" reveal that 18 items differentiate professional from provisional teachers. A marked divergence in response from the two groups is revealed by the fact that 12 of the 18 values are so large as to indicate a very strong and powerful relationship, with rejection of null hypotheses at the .01 level. The coefficients of contingency in some instances indicate good predictive power. (That is to say, knowing one's certificate status would permit a very good indication of what the response to a specific question would most likely be.) For example Item 1 a, requesting an appraisal of the adequacy of the teacher preparation in providing insights relating to ability to work with children indicated that 80 per cent of T-4 teachers. thought the program was either satisfactory or very satisfactory, whereas only 54 per cent of B-4 teachers gave such reactions. One-third of provisional teachers gave a "neither satisfactory nor unsatisfactory" rating, suggesting perhaps the awareness that little or no provision was made for this set of abilities in the program. Only 14 per cent of B-4 teachers gave negative (i.e., one of the unsatisfactory) responses as compared with 12 per cent of professional teachers. The large chi-square value (.01 level) provided a contingency coefficient of..21.

No other item in the first 11 items of this section permitted a rejection of the independence hypotheses. These items pertained to the general education of college students which usually involves required

Table 43

Summary Table: Chi-Square Tests of Significance for

Teacher Preparation Programs Items of GBTQ

Item	df^a	Independent Variables			χ^2
		χ^2 Sex	χ^2 Cert.	χ^2 Field	Place of College Training
1. Your teaching personality:					
a. Ability to work with children.	4	6.68	20.13**	32.08**	2.16
b. Ability to work with colleagues.	4	9.32	3.54	14.11	7.00
c. Ability to work with members of the community.	4	3.60	4.92	19.02	5.57
d. Ability to maintain a friendly disposition.	4	5.58	5.02	26.05	1.93
e. Ability to lead a well-rounded life: to enjoy work and play.	4	1.61	2.24	18.61	3.62
2. Your general knowledge and understanding of:					
a. The physical sciences.	4	21.3**	8.54	75.62**	12.36*
b. The biological sciences.	4	3.47	1.37	86.72**	7.03
c. American culture and institutions.	4	4.04	9.17	50.63**	0.46
d. Art, music, literature, philosophy.	4	16.36**	4.37	60.22**	1.49
3. Your ability to use the English language effectively.	4	31.1**	5.82	47.74**	2.47
4. Your knowledge and understanding of the subject areas which you teach.	4	8.58	4.50	22.11	3.23
5. Your understanding of children and youth:					
a. Insight into causes of behavior.	4	11.05*	8.01	31.93*	0.99
b. Skill in working with exceptional children: the bright, the dull, the handicapped.	4	1.93	10.54*	12.60	10.79*

Table 43 (Continued)

Summary Table: Chi-Square Tests of Significance for

Teacher Preparation Programs Items of GBTQ

		Independent Variables			
Item	df[a]	χ^2 Sex	χ^2 Cert.	χ^2 Field	χ^2 Place of College Training
5. (Continued)					
c. Skill in group work.	4	3.99	5.89	19.71	4.42
d. Skill in maintaining discipline.	4	8.02	23.14**	20.45	9.54*
6. Your understanding of the nature of the learning process:					
a. Skill in helping students determine objectives.	4	1.34	5.25	9.67	5.58
b. Skill in motivating students.	4	5.93	11.14*	18.46	2.63
c. Skill in pupil-teacher planning.	4	11.98*	24.82**	20.24	0.60
d. Skill in using a variety of teaching methods.	4	8.28	47.78**	20.49	3.43
e. Skill in evaluating pupil growth and class procedures with pupils.	4	11.10*	18.21**	18.44	4.86
f. Ability to construct appropriate tests and materials.	4	8.63	20.41**	13.82	1.32
7. Your knowledge of sources of teaching materials:					
a. Printed materials.	4	7.01	22.44**	11.70	4.55
b. Audio-visual materials.	4	11.57*	25.43**	13.67	1.90
c. Community resources and materials.	4	10.45*	13.18*	23.16	3.10
8. Your ability to use teaching materials effectively.	4	5.66	18.86**	24.55	1.75

Table 43 (Continued)

Summary Table: Chi-Square Tests of Significance for
Teacher Preparation Programs Items of GBTQ

Item	df[a]	χ^2 Sex	χ^2 Cert.	χ^2 Field	χ^2 Place of College Training
9. Your knowledge and understanding of the community:					
a. The purposes of the school in relation to the over-all purposes of society.	4	3.98	4.63	34.94**	1.27
b. The social structure of the community and its meaning for education.	4	1.88	2.16	27.18*	2.62
c. The institutions of the community.	4	3.15	1.76	23.52	5.12
d. The different value-patterns of social-economic classes.	4	3.12	4.77	29.48*	2.81
e. The economic life of the community.	4	1.39	2.58	39.66**	4.42
10. Your evaluation of the following teacher preparation experiences:					
a. Student teaching (if applicable).	4	23.67**	58.62**	26.08	9.25
b. Observing other teachers.	4	6.10	22.40**	21.30	6.97
c. Subject matter courses.	4	3.69	12.83*	23.65	1.87
d. Psychology courses.	4	8.27	6.28	22.07	6.26
e. Teaching methods courses	4	11.40*	15.55**	20.61	10.72*
f. Professional practicums and seminars.	4	13.12*	10.23*	9.49	6.95
g. Professional education courses.	4	1.81	2.63	22.03	2.61
11. What suggestions do you have for improving your teacher education program?	10	16.29	19.21*	41.15**	11.57

*Significant at .05 level. **Significant at .01 level.

[a] The degrees of freedom listed are for the dichotomous independent variables of sex, certification status, and place of training. To derive the df for field, multiply the number of df listed for the particular item by 4. Five fields (rows) constitute $(\overline{r} - 1)$ degrees of freedom times one less than the number of columns.

courses taken at junior division college level. Perhaps the education of the two groups of teachers is not really very different at this level.

On Question 5 b, which asks for a reaction concerning "skill in working with exceptional children," a significant chi-square value was obtained which permitted rejection of the null hypothesis. Upon examining the obtained frequencies within the individual cells to find the source of the divergence from expectation, it was discovered that 43 per cent of the provisional teachers indicated a neutral ("neither satisfactory nor unsatisfactory") with 28 per cent of professional teachers giving such an appraisal. The impression is that the respondent was not aware of such provision in the teacher preparation program, especially for the B-4 group. The "favorable" categories percentages were: T-4, 38; B-4, 31; the percentages in the "unsatisfactory" columns (added) were: T-4, 34; B-4, 26. Thus, professional teachers had more definite opinions, whereas provisional teachers tended to be more indefinite.

The same conclusion is apparent when the strong relationship (.01 level) between certification and "skill in maintaining discipline" is examined closely. The percentages of "satisfactory" (two favorable categories) "neutral", and "unsatisfactory" (combining two unfavorable categories) for the two groups were, respectively: T-4: 59, 14, and 27; B-4: 45, 32, and 23. Again professionals were more represented in both definite opinions categories, with provisionals more undecided.

That this pattern of professional teachers having more definite opinions, primarily more favorable than unfavorable, with provisional teachers relatively more neutral or undecided is revealed by the frequency counts of favorable, neutral, and unfavorable responses to the items found to be significant for the two certification groups. (The numbers are the percentages where the two favorable or "satisfactory" categories are combined, the neutral is "neither satisfactory nor unsatisfactory", and the unfavorable combines the two "unsatisfactory" categories:

6b.	"motivating students"	T-4: 66, 16, 18. B-4: 53, 28, 19.
6c.	"pupil-teacher planning"	T-4: 52, 22, 16. B-4: 40, 40, 20.

6d.	"using a variety of teaching methods"	T-4:	76, 14, 10.
		B-4:	46, 33, 21.
6e.	"evaluating pupil growth"	T-4:	71, 18, 11.
		B-4:	53, 28, 19.
6f.	"constructing tests and materials"	T-4:	79, 9, 12.
		B-4:	62, 24, 14.
7a.	"knowledge of printed materials"	T-4:	76, 10, 14.
		B-4:	59, 25, 16.
7b.	"knowledge of audio-visual materials"	T-4:	73, 11, 16.
		B-4:	51, 27, 22.
7c.	"knowledge of community resources and materials"	T-4:	61, 19, 20.
		B-4:	47, 33, 20.
8.	"ability to use teaching materials effectively"	T-4:	78, 13, 9.
		B-4:	61, 26, 13.

Five questions pertaining to the adequacy of the teacher preparation program in relation to knowledge and understanding of the community failed to discriminate between the two types of certified teachers. This area was perceived by the great majority of teachers to be satisfactory or very satisfactory (from 75 to over 90 per cent checking one of these two positive categories.) Even for these nonsignificant items, there was a tendency for the provisional teachers to mark "neither satisfactory nor unsatisfactory", indicating some lack of awareness perhaps of those aspects of the program.

Seven pre-categorized items and one open-end question requested an evaluation of the professional laboratory and other paraprofessional experiences. All but two of these eight significance tests revealed that the two groups responded in distinctive (i.e., different) ways. Student teaching was regarded more positively than any single item on the GBTQ. Only eight per cent of professional teachers failed to indicate a satisfactory or very satisfactory rating; 73 per cent marked this experience as being very satisfactory. Only 50 of the 220 provisional teachers checked this item, with 14 (28 per cent) indicating it was neither satisfactory nor unsatisfactory, 29 (or 58 per cent) indicating it was satisfactory or very satisfactory, and 7 (14 per cent) regarding this experience as unsatisfactory or very unsatisfactory. Only 22 teachers in all gave a negative rating, as compared with more than 250 positive ratings. The uncorrected coefficient of contingency of .41 indicated that this single item alone could be used as a predictive index to a high degree.

The other items in this subsection involved "observing other teachers," "subject-matter courses," "psychology courses," "teaching methods courses," "professional practicums and seminars," and "professional education courses." Only "psychology courses" and "professional education courses" failed to discriminate the two certification groups. The overwhelming consensus was favorable for both groups, on all the items, with range of favorable response percentages from 46 for professional practicums, 67 for teaching methods, 74 for psychology courses, 77 for observing teachers, to 87 for subject-matter courses. Professionally certified teachers consistently had higher percentages of favorable responses, with provisionally certified teachers far less likely to have a definite opinion. (In no case did the professionally certified check the middle or neutral position more frequently or proportionately more frequently than did the provisional teachers.) However, although very small numbers and proportions were involved, the professional teachers were uniformly more critical, with higher proportions checking the two unsatisfactory categories. Oddly enough, after giving very favorable ratings to the specific items descriptive of the professional program (student teaching, observing other teachers, subject-matter courses, teaching methods courses, and professional practicums), much more criticism was directed to the vague item "professional education courses," with 31 per cent giving unfavorable reactions.

Although a significant chi-square value for certification status was obtained on the open-ended questions soliciting suggestions for improving the teacher preparation program, both groups agreed (39 per cent professional, 33 per cent provisional) on the most frequent response: "more practical courses, more practical methods". Provisional teachers (19 per cent) recommended more emphasis on subjects in major field, which was mentioned by 9 per cent of professionals. Professional teachers (18 per cent) thought more teaching and less clerical work should be permitted in student teaching than provisional teachers (10 per cent).

Teacher Preparation Program as Related to Field of Teaching. Of the 38 items in this section of the GBTQ, 26 items failed to differentiate the five fields (or level in the case of elementary teachers). With only two exceptions, the items which differentiated the fields of teaching did not differentiate the two certification groups. The two exceptions which were different for both independent variables were "ability to work with children" (Item 1a); and the final open-ended question, "What suggestions do you have for improving your teacher education program?" Since some indication has already been given of the typical responses of the group as a whole in this section, only these two items significant for both field and certification and the ten items unique to the field of teaching are discussed.

For the entire group of teachers, 62 per cent checked one of the satisfactory categories, 25 per cent were "neutral", and 13 per cent marked one of the unsatisfactory responses to the programs as related to skills in working with children. Elementary teachers thought the program was satisfactory by the most favorable margin (75 per cent with 17 per cent neutral, and 8 negative); followed by social studies (60 per cent favorable, 30 per cent neutral, 10 per cent unfavorable); mathematics (62, 24, 14); science (61, 25, 14); and English teachers, who viewed the program as least satisfactory in this respect (47, 31, 22).

As perhaps could be expected, teachers of the content areas mentioned need for more emphasis on subjects in major field than did the elementary teachers. This was especially true of mathematics and science teachers. All teacher groups agreed however, on the most important suggestion: the need for more practical experience, more practical methods and courses. These suggestions were especially true of the high school areas, where 46 per cent of mathematics, 40 per cent of science and 38 per cent of social studies and English teachers mentioned this suggestion. (Twenty-six per cent of elementary teachers gave this suggestion.) Elementary teachers were much more likely (26 per cent) to mention a need for teaching experience rather than merely clerical work as compared with mathematics (5), English (9), social studies (14) and science (17 per cent). More observation of teachers was requested by elementary, social studies, and English teachers.

The questions concerning general education and teaching personality (except for ability to work with children) had failed to discriminate the two certificate groups. All these items, however, (2a, 2b, 2c, 2d, 3) produced different responses for the teaching field groups. As was to be expected, persons who were teaching within a particular field thought that the program was more satisfactory for that field than the other groups. For example, the frequency counts for the various fields for the two satisfactor categories combined, the middle category - "neither satisfactory nor unsatisfactory", and the two unsatisfactory categories combined for the various fields and for the five items pertaining to general education were as follow

(Your knowledge . . . of)

a. the physical sciences: Elementary : 71, 15, 14.
English : 55, 23, 22.
Mathematics : 82, 11, 7.
Science : 81, 10, 9.
Social studies: 56, 20, 24.

b. the biological sciences: Elementary : 72, 15, 13.
English : 70, 14, 16.
Mathematics : 73, 15, 12.
Science : 87, 5, 8.
Social studies: 58, 23, 19.

c. American culture and institutions:
Elementary : 76, 17, 7.
English : 85, 9, 6.
Mathematics : 79, 14, 7.
Science : 70, 19, 11.
Social studies: 91, 8, 1.

d. Art, music, literature, philosophy:
Elementary : 83, 12, 5.
English : 94, 1, 5.
Mathematics : 66, 14, 20.
Science : 59, 21, 20.
Social studies: 79, 14, 7.

3. Your ability to use the
English language effectively:
Elementary : 93, 7, 0.
English : 99, 1, 0.
Mathematics : 80, 12, 8.
Science : 78, 11, 11.
Social studies: 92, 3, 5.

From the frequencies listed above, the source of the divergence from expectancy which produced the significance may readily be perceived. Each field regards the teacher preparation program for his own particular general education area as most adequate. This finding would surely be logical, in part explaining perhaps why the teacher has chosen the particular field of his major preparation.

Item 5 a, "insight into causes of behavior" was answered differently by the elementary teachers as compared with those in the high school fields. Elementary teachers viewed their program as being much more satisfactory (85 per cent), with only 5 per cent feeling the elementary teacher preparation program to be inadequate. Approximately 66 per cent of high school teachers thought this phase to be satisfactory with many more undecided. There was some variation also in the degree of satisfactoriness, with only 11 per cent of English teachers saying the program was very satisfactory as compared with 33 per cent of mathematics teachers. English and social studies teachers were also more undecided, and science teachers more critical at this point.

Four items pertaining to knowledge and understanding of the community differentiated the teaching field groups. The general appraisal in this area was mostly favorable, with far more satisfactory than unsatisfactory ratings. The social studies and elementary teachers were most favorable and science teachers least favorable on the "purposes of the school in relation to the overall purposes of society." English and science teachers gave somewhat more unfavorable reactions to the item on the social structure of the community as compared with the other three groups. (However, 75 per cent of all teachers gave favorable ratings and no single group failed to have a majority giving favorable perceptions on this point.) Eighty-two per cent of all teachers gave favorable ratings to the program for teaching different value-patterns of social-economic classes, with social studies and elementary teachers giving most favorable perceptions and science teachers least favorable. Seventy-three per cent of all the teachers perceived the program as satisfactory in teaching knowledge of the economic life of the community with social studies and elementary teachers viewing the program most favorably, English teachers most undecided, and science teachers giving the highest percentage of unfavorable reactions.

Place of College Training as related to Teacher Preparation Program. Only four items were answered in a statistically significant way by the teachers who were trained in Georgia colleges as compared with those who came to Georgia from colleges located outside the state. The question concerning the teacher's perception of the adequacy of the program in the area of the physical sciences revealed that Georgia-trained teachers viewed the program more favorably (75 per cent satisfactory, 14 neutral, and 11 per cent unfavorably) as compared with corresponding percentages of 61, 18 and 21 for non-Georgia teachers respectively. The strong support given the sciences by the University System of Georgia along with the inclusion of more sciences in general education and in professional education for science and elementary teachers within recent years may partially explain this difference in perception. It may well be that similar emphases have been made in other states, but heavy emphasis is known to have been placed in this area recently in Georgia.

The significant chi-square obtained in response to Question 5 b, "understanding . . . . skill in working with exceptional children," also indicates that Georgia-trained teachers perceived this area more favorably: Georgia teachers marked favorable, 37 per cent, neutral, 32 per cent, unfavorable, 31 per cent. The same proportions, respectively, for non-Georgia teachers are 31, 40, and 29.

Georgia teachers were somewhat less critical in their responses to Item 5 d, "skill in maintaining discipline" than were non-Georgia-trained teachers. Favorable, neutral, and unfavorable percentages for Georgia-trained teachers were 56, 24, and 20, as compared with 48, 20, and 32 for teachers who received their preparation in colleges located outside Georgia.

Georgia teachers and those trained out of Georgia also differed more significantly on their impressions of the teaching methods courses in their teacher preparation institutions. The source of the divergence was in the fact that teachers from other states had greater variability than Georgia teachers. Following are the percentages for very satisfactory, satisfactory, neutral, unsatisfactory, and very unsatisfactory for the two groups:

Georgia : 22, 35, 20, 14, 9.
Non-Georgia: 30, 26, 19, 9, 16.

Collapsing the two extreme categories into the adjacent categories in the frequency counts given above has the effect of cancelling out the source of divergence. Georgia teachers, thus, had the tendency to give mild favorable or unfavorable reactions, to a greater extent than did the non-Georgia trained group.

Beginning Teachers Experiences

Table 44 presents the summary of the chi-square tests of significance for the Teaching Experience items of the GBTQ. As the conceptual model (Figure 5) indicated, it was expected that this section would not discriminate teachers (especially the certification groups) as much as the other sections would. This area represents for these teachers, the present - as opposed to the past (distant past - choice of vocation; more recent past - teacher preparation) and the future (plans for teaching in coming years). Since the teachers are presumably undergoing similar experiences, it was expected that their perceptions would not likely be greatly different. Inspection of Table 44 reveals that, of the 47 tests of significance, 11 differences were significant for sex, nine for certificate, nine for field of teaching, and seven for place of college training.

Sex of the Respondent as Related to Perceptions of Teaching Experiences. Men and women teachers reacted differently to the question asking "How much help have you received .... in understanding and using courses of study and curriculum guides?" Women indicated that they received "much" (15 per cent) more than men (6 per cent), whereas 55 per cent of men as compared with 47 per cent of women said "some".

Table 44

Summary Table: Chi-Square Tests of Significance for

Teaching Experiences Items of the GBTQ

		Independent Variables			
Item	df[a]	χ^2 Sex	χ^2 Cert.	χ^2 Field	χ^2 Place of College Training
1. How did you get your teaching job?	4	7.97	9.24	24.27	23.55**
2. Were you assigned to the job that you were promised?	1	0.40	0.01	7.12	5.30*
3. If not, were you disappointed?	1	2.02	0.41	1.83	0.00
4. When you first started to work, what was the general attitude of the other teachers toward you?	2	3.49	1.04	7.52	9.78**
5. Did you encounter any conflict between the ideas and philosophy you had formed while in college and the ideas and philosophy of your principal?	3	4.53	3.07	8.72	5.41
6. What orientation to your teaching responsibilities have you had on the local level?	4	8.89	4.00	28.54*	6.44
7. Do you consider this orientation adequate?	1	3.70	0.52	1.53	2.98
8. How much help have you received in each of the following since you have been teaching?					
a. Understanding the goals of the school.	2	3.81	0.48	13.04	3.83
b. Developing better personal qualities as a teacher--voice, poise, emotional control, etc.	2	0.15	1.19	13.72	3.85

Table 44 (Continued)

Summary Table: Chi-Square Tests of Significance for Teaching Experiences Items of the GBTQ

Item		df^a	Independent Variables χ^2 Sex	 χ^2 Cert.	 χ^2 Field	χ^2 Place of College Training
8.	(Continued)					
c.	Understanding and using special school services--standardized test results, remedial reading, psychologist, etc.	2	4.59	1.09	22.74**	3.61
d.	Keeping and making out official records and reports.	2	3.49	0.64	3.52	0.00
e.	Understanding and using courses of study and curriculum guides.	2	8.49**	3.66	13.06	9.40**
f.	Making effective use of community resources.	2	2.76	2.62	12.51	1.05
g.	Handling disciplinary problems.	2	0.21	6.53*	6.98	3.31
h.	Planning for the working with gifted and retarded children.	2	0.77	1.51	14.43	8.05*
i.	Getting acquainted with the community and its people.	2	4.61	5.85	11.72	1.28
j.	Understanding your extracurricular activities.	2	4.27	1.77	14.53	2.67
9.	To what extent have you received help with the items mentioned above from the persons listed below?					
a.	Principal	2	6.59*	4.48	13.18	6.20*
b.	Supervisor or consultant	2	4.33	2.56	9.02	1.13
c.	Fellow classroom teachers	2	14.20**	6.53*	12.63	1.62
d.	Visiting teacher	2	2.76	3.95	13.33	3.57

Table 44 (Continued)

Summary Table: Chi-Square Tests of Significance for Teaching Experiences Items of the GBTQ

Item		df^a	Independent Variables χ^2 Sex	 χ^2 Cert.	 χ^2 Field	χ^2 Place of College Training
9.	(Continued)					
	e. Counselor	2	3.68	1.64	71.16**	2.99
	f. Superintendent	2	15.30**	8.68*	7.39	2.34
	g. Student	2	1.31	2.39	24.38**	1.93
10.	Do you feel that your community expects too much of you personally?	1	1.32	1.60	9.71*	0.38
11.	Do you feel that your community exepcts too much of you professionally?	1	0.03	4.34*	2.12	2.10
12.	To what degree do you feel that you are socially accepted?	5	5.94	1.39	10.11	1.31
13.	How does your teaching assignment compare with that of the more experienced teachers of the same grade or subject?	2	2.13	0.81	2.56	1.26
14.	Do you think your salary as a beginning teacher is adequate?	1	30.31**	1.46	9.36	0.17
15.	Do you supplement your income by working at another job?	1	64.11**	11.88**	10.83*	0.91
16.	Are you presently enrolled in a formal college course?	1	3.54	16.54**	2.57	0.78

Table 44 (Continued)

Summary Table: Chi-Square Tests of Significance for Teaching Experiences Items of the GBTQ

Item		df^a	Independent Variables χ^2 Sex	 χ^2 Cert.	 χ^2 Field	χ^2 Place of College Training
17.	To what extent has each of the following professional activities been a matter of concern or anxiety to you in your first year of experience?					
	a. Keeping abreast of recent professional developments.	2	0.19	8.64*	4.37	1.51
	b. Eveluating pupil progress.	2	4.18	1.60	6.09	2.70
	c. Using teaching aids.	2	4.85	4.09	9.20	3.95
	d. Planning learning activities for studnets.	2	15.02**	1.48	10.88	0.78
	e. Keeping and preparing records and reports.	2	6.88*	1.85	15.17	1.79
	f. Understanding the goals of the school.	2	0.25	0.70	5.28	1.04
	g. Handling disciplinary problems.	2	13.25**	2.63	8.31	4.08
	h. Working with exceptional children.	2	1.71	4.23	3.08	0.85
	i. Understanding and using courses of study and curriculum guides.	2	7.69*	2.03	14.17	1.57
	j. Motivating pupils who seem disinterested.	2	3.70	4.82^b	5.63	0.50
	k. Relating to parents.	2.	0.38	5.52	2.86	2.37
	l. Making effective use of community resources.	2	2.35	5.51^b	7.05	2.21
	m. Getting acquainted with the oommunity.	2	0.66	1.83	13.83	1.10
18.	What has been your greatest satisfaction in teaching so far?		14.23*	7.19	70.00**	9.88
19.	What has been your greatest dissatisfaction in teaching so far?	17	24.04	7.51	88.70*	39.26**

Table 44 (Continued)

Summary Table: Chi-Square Tests of Significance for

Teaching Experiences Items of the GBTQ

Item	df[a]	Independent Variables χ^2 Sex	 χ^2 Cert.	 χ^2 Field	χ^2 Place of College Training
20. What has been your greatest surprise in teaching so far?	17	21.16	16.97	99.63**	18.68

*Significant at .05 level.
**Significant at .01 level.

[a] The degrees of freedom listed are for the dichotomous independent variables of sex, certification status, and place of training. To derive the df for field, multiply the number of df listed for a particular item by 4. Five fields constitute (5 - 1) degrees of freedom times one less than the number of columns.

[b] These items with one degree of freedom each were significant when categories none and some (for motivating pupils) and some and much (for making use of community resources) were combined.

With respect to items 9b, 9c, and 9f, asking "To what extent have you received help from the principal, fellow classroom teachers, and the superintendent on the several problem or activities areas?," men differed from women in that they perceived the principal and the superintendent as helpful "some" or "much" in greater proportions whereas women were more likely than men to find classroom teachers helpful. Forty-four per cent of men thought the principal was of "much help" as compared with 32 per cent women; 49 per cent of the men thought the principal was of "some help" as compared with 61 per cent women. Classroom teachers were of "much help" to 64 per cent of the women, 46 per cent of the men, and of "some help" to 34 per cent of the women, 51 per cent of the men. The superintendent was seen to be of "much help" to 2 per cent of the men and 3 per cent of the women, and of "some help" to 24 per cent of the men, as compared with 10 per cent of the women.

In response to the related questions, "Do you think your salary as a beginning teacher is adequate? and "Do you supplement your income by working at another job?" (Questions 14 and 15), very strong relationships were found. Men answered "No" by 89 per cent as compared with 66 per cent of women to the salary question. The coefficient of contingency was .25 for this question. To the question concerning working at another job to supplement income, 38 per cent of men said "Yes;" as compared with 8 per cent of the women. This item produced a chi-square value of 64 with an uncorrected contingency coefficient of .35, indicating moderate predictability from this single item.

Other items which were answered in distinctive ways by the men and women respondents were the items under Question 17 concerning the extent to which selected professional activities had been a matter of concern during the first year of teaching. To the item "planning learning activities for students," twice as many women (32 as compared with 16 per cent) indicated much concern; 15 per cent of women as compared with 22 per cent men reflected no concern. "Keeping and preparing records and reports" also was of much more concern to women (38 as compared with 27 per cent for men); 28 per cent of men as compared with 20 per cent of women indicated no concern in this area. "Handling disciplinary problems" was indicated by 45 per cent of women as of much concern as compared with 29 per cent of men, whereas 22 per cent of men as compared with 18 per cent of women indicated this area was of no concern. "Understanding and using courses of study and curriculum guides" was regarded as of much concern by 17 per cent of women as compared with 11 per cent of men, with 46 per cent of men reporting no concern as compared with 33 per cent of women.

Certification Status as Related to Teaching Experience. As expected according to the conceptual model (Figure 5, Chapter 4), the items related to teaching experiences did not differentiate the two major certification groups. These teachers apparently were undergoing similar experiences, and their reactions were not markedly different. Fewer than 20 per cent of the items (9 out of 47) elicited differential patterns of response from professional and provisional teachers. Perceptions of help received in handling disciplinary problems (Item 8 g) by provisional teachers showed higher frequency of "much" (27 per cent as compared with 21). Ten per cent of B-4 teachers received no help, as compared with 18 per cent of professional teachers.

"Fellow classroom teachers" were perceived by professional teachers to be of "much help" more frequently than was true of provisional teachers; the respective percentages were 61 and 52. Four per cent of T-4 teachers said they were of no help, as compared with one per cent of B-4 teachers.

The superintendent was perceived somewhat more favorably by provisional teachers, since 23 per cent said the superintendent was of "some" or "much help" on various professional problems, as compared with 13 per cent professional teachers. It is recognized that this result may simply reflect the fact that more provisional teachers proportionately are men, who perceived the superintendent (who is usually a man) more favorably than did women. Since a very strong relationship (chi-square of 15.3) was found for sex on this item, it may be that this factor (respondent sex) rather than certification status per se is operating to effect the significance. The same phenomenon may have accounted for the opposite result for classroom teachers where the very strong relationship for sex (chi-square of 14.2) may have been reflected in the higher value placed on classroom teachers' help by professional teachers (who are more often than not women).

A slight but significant relationship was obtained in responses to the question, "Do you think that your community expects too much of you professionally?" Although the overwhelming consensus was "No," 14 per cent of provisional teachers as compared with 8 per cent of professional teachers indicated that they considered this to be true of the community's expectations.

Twice as many provisional teachers (26 as compared with 13 per cent) indicated that they supplemented their income with a second job; this difference was significant. Again this result may have come about because of the "hidden" sex variable. This item produced a chi-square for sex of 64.11, which is an extremely high relationship, whereas the certification status variable had a chi-square of 11.88, still high but not as powerful as in the case of the sex variable.

Three items from Question 17 concerning the extent to which selected activities had been a matter of concern during the first year elicited distinctive responses from the two certificate groups. "Keeping abreast of recent professional developments" was seen by provisional teachers to be of much concern (17 as compared with 8 per cent) with 50 as compared to 60 per cent of professional teachers saying this area was of some concern to them.

Two areas, "motivating pupils who seem disinterested" and "making effective use of community resources," were responded to in different ways by the two certification groups. In both instances, professional teachers were more concerned about these areas. Specifically, 61 per cent of T-4's as compared with 51 per cent of B-4 teachers were much concerned about motivating pupils, and 53 per cent of T-4 teachers as compared with 43 per cent of B-4 teachers had either some or much about use of community resources.

Field of Teaching as Related to Beginning Teaching Experiences. Nine of the 47 items in the teaching experiences area produced a significant chi-square value when field of teaching was the independent variable. Question 6 concerned the type of orientation to teaching responsibilities on the local level. Elementary and English teachers indicated to a greater extent than expected that a meeting of all new teachers in the system was the most frequent orientation, science teachers mentioned a brief orientation by principal more frequently (proportionately) than the teachers in other fields, and social studies teachers were more likely than expected to mention a planned, systematic series of long range meetings.

Question 8 c asked how much help had been received in understanding and using special school services, such as standardized test results, remedial reading, school psychologist, etc. This item produced a highly significant chi-square value and the frequency counts indicated that elementary teachers checked "much help" more than twice as frequently as any of the high school teaching field areas, and also indicated "some" more frequently than any other field. By contrast, 47 per cent of mathematics and science teachers, 43 per cent of English teachers, 36 per cent of social studies teachers, and 24 per cent of elementary teachers indicated that they had received no help in this general area.

Field of teaching failed to differentiate the amount of perceptions of help received from the principal, supervisor, fellow teachers, visiting teacher, or superintendent. However, a very strong relationship was discovered for both counselor and student as sources of help to the beginning teacher. Teachers in the four content fields other than elementary (usually found in considerable numbers at high school level) indicated some or much help in much greater numbers than did the elementary teachers. The percentages of elementary teachers indicating none, some, and much help were 72, 24, and 4. By comparison, science teachers indicated as none, some, and much help, respectively, 22, 65, and 13, while social studies teachers gave 32 none, 56 some, and 12 much; English teachers responded as follows: 38, 49, and 13; with mathematics teachers indicating percentages in these three categories as 34, 60, and 6. This relationship was very strong and yielded an (uncorrected) contingency coefficient of .30.

Social studies and science teachers perceived students to be of much help much more frequently than other teachers. Mathematics and elementary teachers (over 40 per cent in both groups) saw students as of no help to them in their teaching. Over 50 per cent of high school teachers said students were of some help as compared with 43 per cent of elementary teachers checking this category of response.

The question "Do you think the community expects too much of you personally?" elicited a significantly different response by field. Except for mathematics teachers (11 per cent), no group indicated more than 10 per cent answering the question in the affirmative. Less than 2 per cent of elementary teachers thought the community expected too much of them, with 4 per cent of English teachers, 8 per cent social studies, and 9 per cent science teachers indicating that they felt the community expected too much of them personally.

Science and social studies teachers were supplementing their incomes more frequently (compared with expected frequencies) with elementary teachers much less likely to have a second job, followed by English teachers. This variable is perhaps related to the sex-by-field ratio with those fields having more men reporting much more likelihood of having two jobs. For the entire group, 19 per cent had a second job. Using this percentage as an expected value, elementary teachers reported 12 per cent, English teachers 15 per cent, mathematics 19 per cent, social studies teachers, 25 per cent, and science teachers, 27 per cent.

The three questions requesting free responses to sources of "greatest satisfaction," "greatest dissatisfaction," and "greatest surprise" in the first year of teaching produced very large chi-square values indicating the groups did not answer the questions in a similar manner. Examination of the frequencies associated with the several fields indicated that for mathematics and science teachers the most popular response was "helping students to learn," (52 per cent mathematics and 47 per cent science teachers) "Progress of students" was the source of greatest satisfaction to 43 per cent of English, 41 per cent social studies, and 40 per cent of elementary teachers. Social studies teachers and English mentioned "meeting some good people" in 21 and 20 per cent of instances, respectively. "Feeling of respect" was slightly more typical of science (13) and mathematics (12) than English (9), social studies (7), and elementary (7) teachers. "My own growth" was mentioned by 5 per cent of all teachers, somewhat more frequently by social studies and science teachers than those in other fields.

Of the 430 teachers making a response to the item requesting the source of greatest dissatisfaction during the first year of teaching, 188 or 44 per cent gave "indifference of some students" (24 per cent) or "discipline" (20 per cent). Among the fields, both these answers were somewhat more typical of high school than elementary teachers. Mathematics teachers, for example, had 55 per cent of their replies in one of these two categories (28 and 27 per cent respectively), with 35 per cent of elementary teachers in the combined categories. "Too much clerical work" was given by 16 per cent of English teachers, 11 per cent of social studies teachers, 8 per cent of mathematics, 6 per cent science, and 5 per cent elementary. "Salary" was a greater source of dissatisfaction for science teachers than for those in other fields, especially elementary and mathematics teachers. A great variety of responses was apparent with some variations among fields involving only small frequencies. Sources not already cited mentioned by 10 or more teachers (with the numbers in parentheses) were as follows: inability of some students (29); loss of materials (19); not enough time to do what I'd like to do (15); too much outside work and meetings (13); unprofessional attitudes of some teachers (12).

The question asking for the greatest surprise in teaching elicited a great variety of responses. "Indifference of students" was the most frequent response, with 25 per cent of social studies and 23 per cent of mathematics teachers citing this as the greatest source, with only 6 per cent of elementary teachers in this category. Proportionately more (23 per cent) elementary teachers mentioned "the challenge offered by teaching is rewarding", with English teachers (18 per cent) also surprised by this element. Only one per cent of mathematics teachers mentioned "challenge is rewarding." "Long hours of work and records" was felt more keenly as a surprise by mathematics and social studies teachers, less so by elementary teachers. "The wide range of intelligence of students" was a big surprise to elementary and social studies teachers especially, less so for English and mathematics teachers. Mathematics teachers (16 per cent) and English teachers (11 per cent) were surprised to find "more ability on the part of myself than I thought", which was less characteristics of teachers in the other areas. English teachers were particularly surprised at the "varied learning interests of students" and in the "lack of ability of students", which surprised respectively 12 per cent of all teachers, as compared with 22 per cent of English and 7 per cent of elementary and social studies teachers. The "great ability of some students" and the "willingness of some students to work" impressed 10 per cent of all the teachers, especially elementary and science teachers. Other points mentioned fairly frequently as sources of surprise included the operation of the school system (27), and "discipline" (21).

Place of Training as Related to Teaching Experiences. When teachers were classified according to whether they received their college preparation in Georgia or in non-Georgia colleges, seven items of the GBTQ were found to differ for the two groups. Responses to the first item in the section "How did you get your teaching job?" revealed that 91 per cent of Georgia teachers made a personal application, as compared with 79 per cent of teachers trained in other states. More than five times as many non-Georgia teachers get their positions through means other than personal application, with the most prevalent source being the placement agency of the college or university. Twice as many proportionately (12 as compared to 6 per cent) teachers trained in other states indicated that they did not receive the job they were promised, a difference significant at the .05 level.

In response to the question (4) concerning the attitude of the other classroom teachers toward the respondent, 96 per cent of the Georgia teachers checked "friendly" as compared with 89 per cent of the non-Georgia teachers. Only two teachers (both trained outside of Georgia) checked the category of "unfriendly." All other responses were in the "indifferent" category.

Teachers who received their education out of Georgia were more likely to state that they received no help (41 per cent as compared with 36 per cent of Georgia teachers), with only 6 per cent as compared with 16 per cent of Georgia teachers stating that they received much help in "understanding and using courses of study and curriculum guides." Since these guides have been prepared by groups of Georgia teachers and consultants, this response would appear to be not unexpected.

Similarly, Georgia teachers perceived that they had received either some or much help in "planning for and working with gifted and retarded children" than did those teachers who received their college education in other states. Among Georgia teachers, the percentages of none, some, and much help were 69, 24, and 7 respectively as compared with 81, 15, and 4 in these response categories for the non-Georgia group.

Among Georgia teachers, 96 per cent stated that they received either some or much help from the principal as compared with 90 per cent of non-Georgia teachers. Forty per cent of Georgia, as compared with 32 per cent of non-Georgia teachers felt they had received "much help" from this source.

It is perhaps somewhat remarkable that the effect of "place of training" was not significantly different from random effects on more than seven items of the 47 in this section related to teaching experiences. One area in which there was a divergence was in the "source of greatest disappointment". Although the groups responded in rather similar proportions within some types of response, Georgia teachers mentioned "too much clerical work," "too much outside work and meetings," "long hours spent grading papers," and "no free period." Teachers from other states mentioned more frequently than expected, "discipline," "loss of materials," and "inability of some students."

Teaching as a Career

Four items on the GBTQ concerned teaching as a career, with emphasis on present attitudes toward teaching and plans for teaching in the future. According to the conceptual model, it was expected that the two certificate groups of teachers would differ considerably in this area. As revealed by Table 45, three of the questions in this section produced a significant difference for the three independent sources of variation, sex, certificate, and field of teaching, with place of college training eliciting distinctive responses on one question.

Teaching as a Career as Related to Sex of Respondent. Although 83 per cent of women stated that they were satisfied or very much satisfied with teaching as compared with 76 per cent of men, the difference was not quite significant for rejection of the null hypothesis (Chi-square was 3.07).

A somewhat surprising percentage of men (39 per cent as compared with 11 per cent for women) indicated that they expected to teach over 20 years. More men than expected indicated one year of teaching (14 per cent as compared with 12 per cent women), and 11 to 20 years (10 per cent men as compared with 8 per cent women). Fifty-nine per cent of women and 33 per cent men expected to teach from two to five years, with 4 per cent of men and 10 per cent of women indicating an expectation of teaching from 6 to 10 years.

Of the 239 teachers who indicated that they expected to leave the profession, 161 or 67 per cent indicated that they expected to return. That this response is far more typical of women is revealed by the large chi-square value 15.7 with 75 per cent of women as compared with less than half the men (47 per cent) indicating an expectation of returning.

The open-ended question, "If you do not plan to stay in teaching, why are you leaving it?" brought forth 203 responses. When analyzed according to sex of respondent, one of the most powerful relationships (contingency coefficient of .53, chi-square of 76.63 with 7 df) was revealed. Sixty per cent of men said "to obtain a job with higher salary," with 49 per cent of women stating "to raise family." "Too much work in teaching" and "dislike for teaching" was slightly more characteristic of women, while 19 per cent of men and 13 per cent of women said they would leave to further their education.

Table 45

Summary Table: Chi-Square Tests of Significance for Teaching as a Career Items of the GBTQ

Item	df[a]	χ^2 Sex	χ^2 Cert.	χ^2 Field	χ^2 Place of College Training
1. Which of the following best describes your present attitude toward teaching?	1	3.07	2.73	11.81*	6.73**
2. How long do you plan to continue teaching?	4	55.84**	9.83*	26.74*	4.12
3. If you expect to teach less than five years, do you plan to return to teaching later?	1	15.72**	15.24**	7.31	3.72
4. If you do not plan to stay in the teaching profession, why are you leaving it?	7	76.63**	29.77**	43.08*	13.82

*Significant at .05 level.
**Significant at .01 level.

[a] The degrees of freedom listed are for the dichotomous independent variables of sex, certification status, and place of training. To derive the df for field, multiply the number of df listed for a particular item by 4. (Five fields constitute (5 - 1) degrees of freedom times one less than the number of columns.

Certification Status as Related to Teaching as a Career. Although a higher percentage of professional teachers indicated satisfaction with teaching than did provisional teachers, the chi-square value was not quite significant. Eighteen per cent of the provisional teachers expected to teach only one year, as compared with eight per cent of professional teachers. Fifty-one per cent of professionals thought they would teach from 2 to 5 years, as compared with 49 per cent of provisional teachers. Eleven per cent of professionals would teach from 11 to 20 years (as compared with 7 per cent of provisionals) and 23 per cent of professionals expect to teach over 20 years as compared with 18 per cent of provisional teachers.

A substantial chi-square value was found between certification status and intention to return to teaching after an interim. Among the 123 professional teachers who expect to leave even temporarily, 79 per cent expected to return, Among the 116 provisional teachers leaving, 55 per cent expected to return.

Among the 203 teachers who gave reasons for leaving teaching, 47 per cent of the 97 professional teachers said "to raise family" with 19 per cent mentioning "to take job with higher salary." Almost opposite expressions were made by the 106 provisional teachers, 36 per cent of whom said "job with higher salary," with 19 per cent mentioning "family." More than three times as many provisional teachers (24) said "to further education" than the professional teachers (7).

Field of Teaching as Related to Teaching as a Career. Three of the four questions in this section produced distinctive responses from the teachers representing the five teaching fields. Elementary teachers (90 per cent favorable) expressed attitudes of greater satisfaction than those of any other field, followed by mathematics teachers (84 per cent), science (76), social studies (76), and English (74). For all teaching groups, 81 per cent indicated they were satisfied or very much satisfied.

The length of time teachers expected to teach was not the same for the five teaching field groups. Social studies teachers (28 per cent) led the groups in percentage planning to teach over 20 years, followed by mathematics (20), science (20), elementary (19), and English (15). More science teachers (21 per cent) and English teachers (15) expected to teach only one year than elementary (11), mathematics (8), and social studies (8). Over half (59 per cent) of English teachers and precisely half (58 of 116) of the elementary teachers expected to teach from 2 to 5 years, as compared with 40 per cent mathematics, 46 per cent science, and 45 per cent social studies teachers. Sixteen per cent of mathematics teachers as compared with three per cent English teachers expected to teach from 11 to 20 years.

Although no significant differences in expectations to return to teaching were found for the 239 teachers who answered this question, fewer science and social studies teachers and more English, mathematics, and elementary teachers said that they did expect to return than would be expected. (The relationship, however, was not sufficient to reject the null hypothesis.)

Among the 203 responses to the question "why are you leaving teaching," English (48), elementary (40), and mathematics (38 per cent) indicated as their modal (most frequent) response "to raise a family." Science (34) and social studies teachers (45 per cent) indicated "job with higher salary" most popular response. English teachers (20 per cent) expressed the greatest "dislike for teaching" and science teachers (24 per cent) were most likely to return for further education. Social studies teachers (14 per cent) indicated that there was "too much work in teaching."

Place of Training as Related to Teaching as a Career. Only one question produced a significant difference between Georgia-educated and non-Georgia-educated teachers. Eighty-five per cent of Georgia-trained teachers expressed satisfaction, whereas only 75 per cent of non-Georgia-trained teachers were satisfied. The difference yielded a chi-square of 6.73, significant at .01 level.

Summary of the Perceptions of 1965-1967 Beginning Teachers to the Georgia Beginning Teacher Questionnaire.

Responses from 470 Georgia teachers teaching for the first year in 1965-66 or in 1966-67 to 94 items of the Georgia Beginning Teacher Questionnaire were compared on the basis of four independent variables: sex of respondent, certification status, field of teaching, and place of college training. The four sections of the GBTQ with the number of items in each section were: choice of vocation, 5 items; teacher preparation program, 38 items; beginning teaching experience, 47 items; and teaching as a career, (future plans), 4 items. The conceptual model presented in Chapter 4 in conjunction with the similar analysis of the longitudinal study indicated that the expectation would be that professionally certified teachers would differ most from provisional teachers in their choice of vocation, would be somewhat less different in their perceptions of their preparation, quite similar in their perceptions of their teaching experience, and would again diverge in their future plans. Utilizing as a rough measure the number of significant items as compared with the number of nonsignificant items within each of these four categories of response, Table 46 has been prepared as a summary of the results for the two studies: (1) the 1,037 respondent teachers for the 1964-65 group, as presented in Chapter 4, and (2) the 470 teachers representing the depth study sample as presented in this chapter.

In the longitudinal sample (1964-65), professionally and provisionally certified teachers differed on 40 or the 94 items. On the 1965-67 "depth" sample, 35 of the 94 items elicited statistically distinctive responses.

Chi-square tests of independence of significant items by area for certification status in the longitudinal sample resulted in a value of 17.40. In the "depth" sample, the same test resulted in a value of 18.86. Both values were highly significant with three degrees of freedom. An examination of the entries indicated that the conceptual hypothesis (model) was confirmed that professional teachers and provisional teachers would differ most in their reactions to items related to choice of vocation, somewhat less in perceptions of their teacher preparation, least of all in their reactions to their teaching experience (where they are undergoing similar experiences), and would again diverge in their plans for teaching as a career.

Table 46

Summary and Comparison of Significant Items and Nonsignificant Items for the 1964-65 and the Depth (1965 - 67) Samples by Four Independent Variables (Sex, Certification, Field, and Place) for the Four Divisions of the Georgia Beginning Teacher Questionnaire

Independent Variable	Division of the GBTQ							
	Choice of Vocation (5 items)		Teacher Preparation Program (38 items)		Teaching Experiences (47 items)		Teaching as a Career (4 items)	
	Sign.	N. S.	Sign.	N. S.	Sign.	N. S.	Sign.	N. S.
	(1964-65 Study - See Chapter 4) (N - 1,037)							
Sex	5	0	14	24	17	30	2	2
Certification Status	5	0	21	17	11	36	3	1
Field of Teaching	3	2	15	23	25	22	2	2
Place of Training	3	2	16	22	10	37	2	2
	1965 - 1967 (Depth Study Sample) (N - 470)							
Sex	4	1	11	27	11	36	3	1
Certification Status	5	0	18	20	9	38	3	1
Field of Teaching	5	0	12	26	9	38	3	1
Place of Training	0	5	4	34	7	40	1	3

CHAPTER VI

Summary and Implications

The purpose of this study was to compare selected personality characteristics and teaching performance of provisionally and professionally certified beginning teachers in Georgia. The study was conducted in two parts: Part I, a longitudinal study, the purposes of which were to identify some characteristics of the population of 1964-65 beginning teachers in Georgia and to follow samples of this group for three years, and Part II, a more intensive study in "depth" of characteristics and performance of samples of beginning teachers. The two major comparison groups were the provisional four-year-certified (B-4) teachers *without* the professional sequence in education and the professional four-year-certified (T-4) teachers *with* the professional sequence.

Part I of this study consisted of a compilation of information on the population of beginning teachers in 1964-65 obtained from existing records from Georgia Department of Education and from questionnaires submitted to system superintendents and to beginning teachers. Selected data concerning this group were tabulated for the years through 1966-67 to determine what happened to these teachers, particularly characteristics of those who remained and those who left the profession.

Part II proposed to test the hypotheses that first year teachers in Georgia with the professional certificate do not differ significantly from first-year teachers with the provisional certificate with respect to (a) "role expectancies" as measured by *TPQ*, (b) self concepts as measured by *IAV*, (c) personal and professional characteristics as measured by *TCS*, (d) performance as perceived by pupils as measured by *POCR*, (e) ratings by observers on the *COR*, and (f) educational attitudes as measured by *TERP Attitude Scale*.

Research related to this problem was reviewed in two areas: (1) studies of beginning teachers, and (2) measurement of teaching performance or effectiveness. Research in the first area was found to be relatively limited, whereas a vast amount of research had been done on the various facets of teaching performance and effectiveness. This research did not provide a definitive answer to the complex problem of teaching performance or effectiveness.

Two populations of beginning teachers were identified in 1964-65 a September (1964) population nominated by system superintendents from requests submitted to them and a January (1965) population obtained from the official payroll cards processed by the electronic data-processing equipment of the Systems and Data Processing Division of the Georgia Department of Education. The September (1964) population was identified as 2,666 beginning teachers in Georgia. The 109-item questionnaire (GBTQ) was mailed to these teachers. There were 1,037 usable instruments returned. Of this number, 833 were professionally certified teachers and 204 were provisionally certified. The January (1965) population was identified as 3,540 beginning teachers. These teachers were categorized by certificate, race and sex and followed for a period of three years to determine the number and percentage of those remaining or withdrawing from teaching. The teachers from these two populations constituted the groups for Part I, the longitudinal study.

The sample for Part II consisted of five groups of randomly selected provisionally and professionally certified teachers in the areas of science, social science, English, and mathematics at the secondary level, and teachers of elementary grades one through six. A sample of 229 beginning teachers in 1965-66 and 241 teachers in 1966-67 were selected for this phase of the study.

The data were collected, coded, and organized for statistical treatment and then machine processed by the Computer Center of the University of Georgia. The chi-square contingency test was used to test the difference between observed and expected frequencies in the responses to GBTQ. The least-squares analysis of variance was used in statistical treatment of responses to COR and POSR. When differences between a set of means were found to be significant, the Duncan New Multiple Range Test was used. The findings of the study were reported in tabular and graphic form together with discussion.

Major Findings of the Longitudinal Study

Analysis of data on the January, 1965 Georgia beginning teacher population revealed that the type of teaching certificate is clearly related to the incidence of remaining in or early withdrawal from teaching. Of the 1,488 teachers teaching for the entire three-year period 89 per cent were professionally certified teachers, whereas only 11 per cent were provisionally certified teachers. Approximately ten per cent of teachers who remained in teaching moved from one system to another within the state. This movement was slightly more characteristic of professional teachers than provisional teachers.

Only 36 per cent of professional teachers dropped out at the end of the first year as compared with 59 per cent of the provisional teachers. Thus 73 per cent of this one-year teaching group were professionals as compared with an expectation of 83 per cent. The net holding power (over expectation) of the professional certificate amounted to a total of 123 teachers. Fifty-six per cent of professional teachers remained in teaching three years without interruption as compared with 31 per cent provisional. In addition 5 per cent of professional teachers returned after a years leave of absence during the second year, as compared with 4 per cent of provisional teachers. (See Figure 4, page 62.)

White women comprised the largest single group and represented by far the sex-race category which dropped out after one year of teaching in greater proportions. Negro women teachers were the most stable group and the white women were the least stable group. The men teachers represented 17 per cent (white) and 6 per cent (Negro) of the total population. More Negro men than expected remained in teaching and fewer dropped out of teaching. Young white men dropped out of teaching after one or two years in excessive numbers.

Perceptions of Beginning Teachers (1964-65 longitudinal group). Professionally and provisionally certified teachers differed significantly on 40 of 94 items concerning their choice of vocation, the teacher preparation program, their teaching experience and their views of teaching as a career. Professionally certified teachers indicated that they made the decision to teach earlier than did the provisional group, expressed much greater satisfaction with their choice of teaching at the time of graduation, and were markedly more favorable toward the profession.

Professional teachers consistently expressed greater satisfaction with the preparation program. More professional teachers than expected expressed disappointment in their assignments and disagreement with the educational philosophy of the principal during their first year of teaching.

More provisional and fewer professional teachers stated that indifference on the part of students, parents, and supervisors had been the source of greatest dissatisfaction in teaching. Professional teachers gave proportionately more frequent responses indicating lack of materials and facilities, discipline problems, and the many nonteaching duties as their greatest source of dissatisfaction.

Considerably more professional teachers and fewer provisional teachers than expected indicated that their present attitude toward teaching as a career was "satisfied" or "very much satisfied" with considerably more provisional teachers "indifferent" or "dissatisfied".

Professional teachers expressed an interest in remaining in the profession for a longer period of time and cited family responsibility as the reason for leaving the profession. To get a job that pays a higher salary, a dislike for teaching, and to obtain more education were relatively more frequent responses given provisional teachers for leaving the profession.

Responses of 392 Withdrawing Teachers to the Teaching Appraisal Schedule (*TAS*). Major findings of factors associated with early withdrawal of teachers from the profession are summarized according to the eleven dimensions of the teaching environment by indicating those groups of teachers who held more or less favorable attitudes toward each environmental factor.

Teachers who were found to have better *attitudes toward teaching* as a career for loved ones were those who (1) were professionally certified,

(2) were in the age group 40-44, (3) were planning to teach again.

Those teachers (1) who were professionally certified, (2) who were in the age group 30-34, (3) whose fathers had completed high school or college, and (4) who were in systems of fewer than 3,000 students expressed significantly greater *faith in people*.

Four groups of teachers expressed more favorable *attitudes toward self and teaching*. These were (1) those teachers whose mothers had completed only high school, (2) those teachers who left for reasons other than changing professions, (3) those who withdrew from teaching in Georgia and were teaching in other states, and (4) those who planned to teach again.

Attitudes toward working with students were not found to be significantly different among these teachers. However, when original categories were collapsed it was found that teachers in age group 30-34, and teachers who planned to teach again showed more favorable attitudes. Teachers who had taught in grades 1-6 and teachers who planned to teach again held more favorable attitudes toward *views of students*.

Teachers who had more favorable *attitudes toward their own preparation for teaching* were (1) male teachers, (2) teachers in medium-sized systems, and (3) teachers who planned to teach again or who were undecided about teaching again.

Teachers who left the teaching positions because they changed professions expressed more unfavorable *attitudes toward the parents of students*. Male teachers and teachers in systems larger than 3,000 students felt more favorable *attitudes toward the community and community acceptance*.

Teachers who are now teaching (in another state) expressed very favorable *attitudes toward the school system* (in Georgia) but of the teachers who were undecided about teaching again a larger per cent expressed unfavorable *attitudes toward the school system*. Teachers who planned to teach again showed more favorable *attitudes toward the principal*. *Attitudes toward other instructional staff members* were not found to be significantly different among these teachers.

Responses of Remaining Teachers to *RTAS*. Major findings of factors related to retention of beginning teachers in Georgia are summarized according to the eleven dimensions of the teaching environment by indicating those groups of teachers who held more or less favorable attitudes toward each factor than did other groups of teachers in the sample.

Teachers who were found to have significantly better *attitudes toward teaching as a career for loved ones* were those who (1) had pre-teaching experience, (2) were between ages 40 and 49, (3) were satisfied with their current teaching experience and (4) indicated maternity as the projected reason for leaving teaching. Teachers who had pre-teaching experience and indicated maternity as the reason for leaving teaching had significantly greater *faith in people*.

A significant relationship was found between *attitudes toward self and teaching* and the level of the education of the teacher's mother. Those teachers whose mothers had terminated their education below the ninth grade had the most favorable *attitude toward self and teaching*. The group of teachers who (1) felt that "to increase professional competence" would cause them to return to college, (2) expressed satisfaction with present experiences, (3) stated that they would teach for 20 or more years and (4) gave reason for withdrawing "to obtain further education" tended to have the most favorable *attitude toward self and teaching*.

Teachers who were found to have significantly more favorable *attitudes toward working with students* were (1) female teachers, (2) teachers who, as students, attended high school with fewer than 500 students, (3) those who had assisted teachers or had done substitute teaching in their pre-teaching experience, (4) those teachers who stated their purpose in pursuing advanced training was to increase their professional competence, and (5) teachers expressing greater satisfaction with their current teaching experiences. Those teachers who taught at the elementary level had the most favorable *views of students* and the next best attitudes was the group of teachers who taught at the primary level.

Married teachers and those who planned to remain in teaching for the longest period of time tended to have more favorable *attitudes toward their* *own preparation as a teacher*.

Teachers between 40 and 49, those with formative pre-teaching experience, and those who gave maternity as their reason for discontinuing teaching were found to have more favorable *attitudes toward parents* than did the other groups. Male teachers were found to have significantly poorer *attitudes toward the community and community acceptance* than did female teachers. Single people had less favorable *attitudes toward the community and community acceptance* than did the married teachers.

Those teachers at the elementary level, those whose fathers had not graduated from high school, those who had attended school with enrollment less than 500, those who were satisfied with their current teaching experience and who planned to teach for 6 to 10 years had the most favorable *attitudes toward the school system*. The group of teachers who had earned 30 or more hours of college credit since beginning their teaching career had the most favorable *attitudes toward other members of the instructional staff*. The *attitude of the principal* was not significantly related to any of the 22 autobiographical characteristics. Collapsing of the categories revealed that the teachers who (1) would leave teaching for further education, (2) had attended urban and metropolitan schools, (3) were satisfied with their current teaching experience and (4) planned to teach for an additional 10 to 15 years expressed the most favorable *attitudes toward the principal*.

Major Findings of the Depth Study

Results of the Least-Squares Analysis of Variance. An analysis of variance model with four main effects (sex, certification status, field of teaching, and place of training) and the six first-order interaction effects was utilized in testing hypotheses concerning teaching performance and personality characteristics of the depth study sample. Data pertaining to 33 criteria were analysed. The results of the analyses revealed 13 significant differences between men and women, 11 significant differences for certification status, 14 differences for the teachers of the five teaching fields, and 4 differences in main effect for the place of college training

(Georgia colleges or non-Georgia colleges). In addition, there were 5 (of a possible 198) first-order interactions. In addition to the examination of the differences which were non-random and which permitted the rejection of the independence hypothesis, a frequency count was made and summary table prepared of the directions of the differences which were not significant. A nonparametric Sign Test was then made for each of the three dichotomous main effects and a chi-square test of the directions of differences for teaching field was made.

In the several self-report instruments, women perceived the Motivator role (Role II of the Teacher Practices Questionnaire) as more appropriate, and had higher means on the Ryans indirect, correlate measures of X_{co} (warm, friendly) Y_{co} (responsible, systematic), and Z_{co} (stimulating, imaginative) dimensions of the Teacher Characteristics Schedule. The mean rating of the pupils on the Pupil Observation Report was significantly higher for women as compared with men on Factor I (friendly, cheerful, admired) and Factor III (interesting, preferred), variables sometimes considered roughly comparable to the X and Z factors of Ryans. Trained observers who visited the classrooms and viewed the teaching performance gave on the Ryans direct measures, higher means to women Z_o (stimulating, imaginative), M_o (use of materials, media, and methods), T_o (unclassified teacher behaviors), and the COR Total Score (a composite of all the dimensions of the Classroom Observation Record).

Significant differences favoring men were obtained on the Disciplinarian role of the Teaching Practices Questionnaire, the Self Acceptance Scale of the Index of Adjustment and Values, and S_{co} (emotional stability) dimension of the Teacher Characteristics Schedule.

Nonsignificant differences favoring women were found on the Advice-Information Giver and Counselor scales (roles) of the TPQ, Self Ideal (IAV), favorable opinions of pupils (R_{co}) and favorable opinions of democratic classroom practices (R_{1co}) and the validity of response (V_{co}) of the TCS, Factor A - B (consistency of educational attitudes with progressiveness as the positive pole), Factor II (knowledgeable, Poised) of the POR, and X_o (warm, friendly), Y_o (responsible, businesslike), and P_o (pupil behaviors) of the Classroom Observation Record.

Men received slightly higher (but nonsignificant) means on the Referrer scale (IV) of the Teacher Practices Questionnaire, Q_{co} (favorable opinions of administrators and other personnel), B_{co} (learning-centered philosophy), and I_{co} (verbal ability) scales of the TCS, Factor B (Traditional Attitudes toward education), POSR Factors IV and V (Strict control and Democratic Procedures). Almost precisely identical scores for men and women were obtained on the Self-Description scale of the TPQ and the Factor A (Progressive attitudes) of the TERP Attitude Scale.

The sign test for the sex variable (with 21 of 31 variables favoring women) resulted in a value of 1.79, which did not permit rejection of the hypothesis. Since however, the variables on which women differed significantly were relatively important, especially the pupil evaluations and the observer ratings, there is little doubt that women beginning teachers seem to be somewhat superior to men beginning teachers.

Seven of the 21 self-report criteria and four of the trained-observer criteria provided a significant difference which favored the professionally trained beginning teachers over the provisional teachers. Professional teachers considered the teacher's role as a Counselor (Scale III of the Teacher Practices Questionnaire) to be relatively more appropriate than did the provisional teachers. The Ryans Teacher Characteristics Schedule provided four significant differences favoring the professionals. These were the indirect, correlate measures: X_{co} (warm, friendly versus aloof, restrictive), R_{co} (favorable versus unfavorable opinions of pupils), R_{1co} (favorable versus unfavorable opinions of democratic classroom procedures), and Q_{co} (favorable versus unfavorable opinions of administrative and other school personnel). Two other significant differences from the self-reports of teachers favoring the professionally certified teachers were the attitudes revealed in the TERP Attitude Scale Factor A (Progressive or Child-centered), and the Factor A - B, a measure of the consistency of philosophy with the positive pole toward democratic, progressive educational beliefs and practices. Four variables of the trained observers (Classroom Observation Record) differentiated in favor of the professionally certified:

the Ryans direct measures of Y_o (responsible, businesslike, systematic *versus* unplanned, slipshod, evading teacher behavior), T_o (miscellaneous or unclassified behavior on which data were obtained which was not used by the X_o, Y_o, and Z_o factors), M_o (Use of materials, media, and methods), and the Composite (inductively derived) *COR* Total score.

Assuming some validity of these measures, professional teachers were seen therefore to identify with the role of the teacher as a counselor, be somewhat more friendly, have more positive opinions about pupils, democratic practices, administrators and other school personnel, have a more consistent educational philosophy which is directed toward the pole of child-centered or progressive, and to be seen by trained observers as more systematic and businesslike, more skilled in the use of teaching media, more competent in those areas of teacher behavior not specific to a particular Ryans dimension, and overall more competent. Nonsignificant differences favoring professionals were: *TPQ* Information-Giver Role, Y_{co} (responsible, businesslike), and Z_{co} (stimulating, imaginative) of *TCS*, *TPQ* Motivator Role, *IAV* Self Description, *IAV* Self Ideal, *POSR* Factor II (Knowledgeable, poised), *POSR* Factor IV (Strict control), *POSR* V (Democratic Practice), and the *COR* Factors X (warm, friendly), Z_o (stimulating, imaginative), and P_o (pupil behaviors) of the *COR*.

Provisional teachers had slightly but nonsignificantly higher means in the Referrer and Disciplinarian scales of the Teacher Practices Questionnaire, Self Acceptance Scale of the *IAV*, B_{co} (learning-centered viewpoint), I_{co} (verbal ability), S_{co} (emotional stability), and V_{co} (validity of response) for the *TCS*, Factor B (Traditional attitudes toward education) of the TERP Attitude Scale, and Factors I (Friendly, cheerful, admired) and III (Interesting, preferred) of the Pupil Observation Report.

A Sign Test with 23 differences favoring professional and 10 favoring provisional resulted in a z value of 2.09. Since this value was greater than 1.96 (for two tailed test at .05 level), the null hypothesis was rejected. Since many of the significant differences were rather important and a general consistency of results was obtained, the alternative hypothesis that professional teachers (of these samples) are superior to provisional teachers (insofar as these criteria are valid) seems to be supported.

When the data for testing the null hypothesis for fields were summarized, it was found that 12 differences favored elementary teachers, with 8 favoring mathematics teachers, 6 for English teachers, 5 were favorable to social studies and 2 tests gave highest means to science teachers. Some differences were rather small and the significant differences sometimes involved homogeneous groups which overlapped somewhat. A chi-square independence test gave a value of 8.36, which, with four degrees of freedom, did not permit the rejection of the null hypothesis. It seemed reasonable to infer that no single field seemed to have more than a random share of the superior teachers.

Only four significant differences for "place of college training" were obtained, all favoring Georgia-trained teachers. These were the Motivator and Disciplinarian roles of the TPQ, the Self-Description Scale of the IAV, and Factor I (Friendly, cheerful, admired) of the Pupil Observation Record. Nineteen of the 29 nonsignificant differences favored Georgia-trained teachers. The Sign Test (with correction for continuity) gave a value (2.09) which lay in the region of rejection for a two-tailed test at the .05 level. Since so many differences were nonsignificant and somewhat small, the alternative hypothesis that Georgia-trained teachers were superior does not have the strength that is indicated by the Sign Test for sex and certificate.

Three of the five interactions involved sex-by-field. Men and women within the several teaching fields did not perform in the same manner. Men and women seemed to be greater in the fields of elementary and English, and more alike in mathematics, science, and social studies. The three interactions of sex-by-field occurred on the Ideal Self of the IAV, Factor I (Friendly, cheerful, admired) and III (Interesting, Preferred) of the POSR. A significant sex-by-certificate interaction showed that professional men and women were more alike in the Motivator role than provisional men and women, with women scoring higher in both certificate groups. (Main effect for sex was also significant). A certificate-by-place interaction for IAV

Self-Acceptance was significant, indicating that Georgia professional teachers were not only higher on this scale, but the difference was greater, whereas non-Georgia provisional teachers were slightly higher than Georgia-trained provisional teachers.

Results of the Chi-Square Test of Significance for the GBTQ. The 94 dependent variables of the Georgia Beginning Teachers Questionnaire (GBTQ) were analyzed by the independent variables sex, certification status, field of teaching, and place of training. Four sections of the GBTQ were identitied: choice of vocation, teacher preparation program, beginning teaching experiences, and teaching as a career (future plans). A conceptual model was presented which suggested that professional teachers would differ widely from provisional teachers in the choice of vocation items, would be somewhat less different (i.e., converge) in the perceptions of their teacher preparation, would be quite similar in their reactions to their teaching experiences (where they are presumably undergoing similar experiences), and would again diverge in their expectations of teaching as a career. The conceptual model had proven to be an accurate representation for the longitudinal study. (See Chapter 4).

Results of the analysis revealed that in the area of choice of vocation, all five items (of a possible 5) differed significantly for certification status. Professional teachers not only chose teaching much earlier, but teaching was much more likely to be their first choice, and they were much more satisfied with that choice at time of graduation. They usually chose teaching because of the influence of a former teacher and because of their desire to work with children, or liking for a particular subject.

In the area of choice of vocation, four items differentiated men and women, all five items differentiated the various teaching fields, and no item was significant for place of college training.

In the area of teacher preparation program, professional teachers were observed to have much more definite opinions, mostly favorable and differed especially in reactions to the professional education sequence.

Student teaching was viewed very favorably and many recommendations and suggestions were forthcoming on making the student teaching more practical, permitting more teaching and less clerical work, and increasing the opportunities for laboratory experiences, and practical work with students. Little difference was found in the reactions of professional and provisional teachers toward the general education area of the curriculum, but provisional teachers exhibited much caution in interpreting the section having to do with the professional education area. The typical reaction of many provisional teachers was that the professional areas were "neither satisfactory nor unsatisfactory," and the impression was obtained that a general lack of awareness was prevalent. Professional teachers, however, were found in greater proportions on both favorable and unfavorable reactions, with much greater proportions being favorable. In this area 18 out of 30 tests of significance indicated that the groups reacted in non-random fashion.

In this area (teacher preparation program), men and women differed significantly on 11 questions, the fields of teaching on 12 questions, and place of training on 4 of 30 items. It was somewhat noteworthy that the general education areas differentiated the teaching field areas, with each teaching field regarding its own field as most adequate. In most instances with a few exceptions, the professional courses and activities did not differ for the fields.

The area of beginning teaching experiences elicited 9 of 47 differentiated responses for the certification groups, 9 of 47 for the teaching fields, 11 for sex variable, and 7 for the place of training.

Three of four items for teaching as a career differentiated the certification groups. Professional teachers were better satisfied, expected to teach longer and in greater proportions, would return to teaching in greater proportions after dropping out, and were leaving for different reasons, primarily to raise a family. Three items were different for men and women, three for field of teaching, and one for place of training.

The conceptual model seem to be confirmed that professional teachers were very different in their choice of vocation, somewhat converged in their perceptions of the teacher preparation program with the perceptions of provisional teachers, were even closer to the provisional teachers in their reactions to the teaching experiences, and diverged again in the future plans for teaching as a career. A chi-square test of the hypothesis that reactions within the four areas would be the same was rejected and the alternative hypothesis which confirmed the conceptual model seemed to be substantiated. A clear picture indicating more identification with the teaching profession, more satisfaction with teaching, more realistic expectations of the problems encountered, more conflict in philosophy with administrators, and plans for continuing in the profession for longer periods were characteristic of professionally-certified teachers.

Implications

The emphasis given in this study to the characteristics and performance of professionally certified and provisionally certified teachers has important educational implications. These implications and proposed recommendations follow.

Early Identification of Teaching As a Career. In this study, the professionally certified teachers considered teaching as a career somewhat earlier than the provisionally certified respondents. The time of decision perhaps figured in the way they viewed teaching as a career. Since T-4 teachers made a definite teaching career choice earlier, it is reasonable to assume that they were developing a positive self-concept as a teacher and viewed teaching as an attractive profession and indicated a greater degree of satisfaction with their preparation program. The D-4 teachers, perhaps, were undecided or had planned other careers but, for some reason, were not able to pursue the first chosen career. This change of career plans may have resulted in frustrations for the D-4 teachers. A plausible inference can be drawn that early identification of teaching as a career results in a higher degree of satisfaction experienced by teachers and that efforts should be made to encourage early identification of and commitment to teaching as a career.

The availability of auxiliary services to teachers today provides opportunities for increased professionalization of the role of the teacher.

Since many clerical, routine, and nonprofessional tasks are being assumed by teacher aides, the image of the teacher could be enhanced as more time is given to the teacher for performance of professional tasks. This situation implies that teaching can be a rewarding and attractive profession. It further implies that persons who function as teacher aides or teacher assistants may find this to be a period of "reality testing" of teaching as a career. Ambitious and potentially competent persons can "work and study" as they progress upward within the professional hierarchy emerging in the teaching profession.

Teachers of today need to be more cognizant of their roles and responsibilities in attracting young persons to the teaching profession. The perceptions which present day teachers have about teaching as a career and the enthusiasm which they exhibit for teaching may be positive influences in attracting young persons to the teaching profession.

Salary. One most obvious conclusion to be made from the study is that salary occupies a position of great importance in the attitudes of beginning teachers in Georgia. It has long been recognized that the salary is not in keeping with the teacher's education and responsibilities and has been inadequate to provide teachers with the standard of living which they desire or is expected of them. Beginning teachers withdrew from the profession to enter better paying jobs. The comments of many beginning teachers suggested that the professional status of teachers should be raised in the opinions of the general public. One way to raise the professional status is to raise the salaries of teachers to compete with other selective professional groups. The efforts by state and local groups of Georgia to raise the professional status of teachers through increased salary are to be lauded and it is suggested that continuous consideration be given to the feasibility of raising the salary to a level commensurate with other professional groups. Recent efforts of Georgia to give more adequate financial support to public education have already borne fruit in stabilizing the teaching profession.

Pre-Service Education. In the study, professionally certified and provisionally certified teachers differed significantly in their perceptions of their preparation program. The differences of the two groups seemed to be characteristic of skills, insights and understandings associated with professional education. In these areas, professional teachers consistently expressed greater satisfaction with the preparation program. Provisional teachers indicated that they were not particularly aware that attention was given in the preparation program to such matters as developing skill in group work, maintaining discipline, using a variety of teaching methods and materials, and evaluating pupil growth and class procedures. Implied in the comments of the former beginning Georgia teachers who had professional training was the value associated with the student teaching experience and the value that might be derived from other experiences with students prior to assuming full responsibilities as a teacher. It seems advisable that persons responsible for pre-service education of teachers take a closer look at the types and quality of experiences provided for prospective teachers. More consultations with and recommendations from beginning teachers with respect to needed changes in pre-service education seem warranted. Courses in pre-service education which lead to understandings of students, understandings of the nature of the learning process, and understandings of the types of problems which teachers face need to be strengthened.

It has been indicated that persons who had "formative pre-teaching experiences" were more satisfied in their professional roles than other teachers. These experiences, defined as any experiences other than formal college or university training, covered a wide range of activities. Experiences in which the future teacher assisted a teacher, carried out some part-time instructional function or worked directly with children seemed differentially valuable. Teachers perform many tasks which could be performed by persons not fully trained as a teacher. Increased efforts should be made to promote programs which would involve high school age youth in roles as teacher-assistants and in roles in working with children. This further implies the need to find ways earlier in the pre-service education of teachers to involve prospective teachers in working with children.

Since teachers who had had pre-teaching experiences were found to have better attitudes toward their professional environment and professional experiences, ways need to be devised to locate persons who have had "teaching-like" types of experience and encourage them to pursue teaching as a career.

The Principal and the Beginning Teacher. Beginning teachers viewed the principal as the key person in the school situation. He contributed to their satisfaction or dissatisfaction in teaching and his administrative behavior was a significant factor in their decision to remain in or to withdraw from teaching. Views about the principal's behavior represent the full range of a continuum.

Teachers sought help from the principal with instructional problems and with problems relating to classroom organization. A conflict in philosophy, a lack of effective two-way communication, a lack of time for providing help, and a lack of knowledge and skill in instructional leadership were indicated as reasons which stood in the way of securing as much help as desired in the problem areas. As might be expected, these same reasons, in reverse, were indicated by teachers whose principals did provide help which was desired.

Working conditions in the school, such as class assignments in terms of teacher's preparation for teaching, room assignments in terms of adequate space, materials, and equipment, and a minimum of special assignments so that there was time for planning and carrying out the functions of teaching were other matters with which teachers were concerned. They are matters, too, in which the principal plays a major role.

The principal's role is a difficult one. To move toward the positive pole of the continuum, as viewed by teachers, is perhaps the goal of each principal. Progress in this direction may be achieved through a three-pronged approach toward this goal: (1) self-analysis and individual study by the principal, (2) participation by the principal in an in-service program at the school or system level, and (3) participation in a preparation program for the principal which is designed to give emphasis to the particular skills and competencies needed by the principal.

The Elementary and Secondary School Principals Associations could no doubt provide excellent leadership in providing an arena for discussing problems of beginning teachers and of ways to increase effective communication. It has been a source of gratification that steps are already underway with the help of the Bureau of Field Studies of the College of Education, University of Georgia to work with the Elementary School Principals Association of Georgia to follow up findings of this study and to undertake appropriate action to accomplish these goals.

The Supervisor and the Beginning Teacher. Only a small number of beginning teachers in this study indicated that they received much help from the supervisor or consultant in the local school system on classroom, school, or community problems. These responses probably refer to a lack of individual help from the supervisor and reflect a lack of awareness of other ways supervisors provide help to teachers. That beginning teachers want and need individual help is indicated by the sources from which they sought and received such help. They named fellow classroom teachers, principals, students, and supervisors respectively as their sources of help. It is evident that proximity to the teacher is a factor in providing help at the time it is needed.

Many educators today are recommending more supervisory help for beginning teachers. Some school systems are making provision for this service by employing more supervisors at the system levels by relieving present supervisory staff at the system level of non-supervisory functions, and by employing supervisory personnel at the school level, such as supervising principals or department chairmen with supervisory preparation.

A two-fold challenge seems imminent if the need for supervisory help is to be provided. A careful survey made through the leadership of the superintendent to determine help needed and a follow-up survey of available supervisory resources seem to be logical actions. The second part of the challenge relates to all persons in supervisory positions. Are they as diligent as possible in providing help to the beginning teachers? Are they enlisting help from the beginning teachers in deciding what help to provide and how it might be provided?

contribute to the over-all professional climates (a) by improving the quality of their programs, (b) by providing special opportunities for beginning teachers to feel a part of the total school and community structure, and (c) by instigating programs of public relations which lead to improving teaching careers in the opinions of the general public.

Findings of the Georgia Study of Beginning Teachers favor the professionally certified teachers over the provisionally certified teachers. These findings imply the need for continued emphasis on (1) the careful and early selection and recruitment of prospective teachers; (2) high quality pre-service education programs; (3) wise placement and assignment of beginning teachers; (4) professional growth opportunities for the beginning teacher in service; and, (5) other factors which contribute to a wholesome professional climate for these teachers. It is believed that these emphases will make a significant contribution toward the improved professional status of all teachers which in turn will reflect teaching as a more attractive profession with greater holding power. These implications present a challenge to (1) superintendents, principals, supervisors, teachers and community leaders at the local level; (2) teacher education institutions; (3) State Department of Education; and, (4) local and state professional educational organizations and associations.

Additional research somewhat specific to the Teacher Education Research Project would also seem appropriate. The following suggestions may indicate directions which such research may take:

1. Since considerable information is already available on teachers who began teaching in 1964-65, it may be well to continue to follow these teachers to determine to what extent professional teachers continue to remain in teaching, provisional teachers take additional work to become better qualified, and what changes occur in the teaching populations. Particularly as the data bank of the State Department of Education becomes operational, such research would be enhanced and facilitated.

2. A very large amount of data from the "depth study" samples has been accumulated. More than 625 items of information are already available and more could be obtained from other sources. Since much of this information is probably overlapping, it may be profitable to determine which specific items seem to be most efficient in predicting performance and competence. Such

intensive work could perhaps lead to better understandings of what teaching is and could make a contribution to solving the criterion problem. (What is teacher effectiveness?)

3. The presently available data could be examined and additional information obtained from those teachers (both professional and provisional) who remain for some time in the profession, to discover what specifically was most influential in persuading them to remain in teaching? Such information could be potentially useful in determining the type of persons to recruit into the profession.

4. Additional studies utilizing the available information could be made by factor analysis to determine whether or not beginning teachers are distinctive from experienced teachers. (Are the Ryans factors constant for various teacher groups?)

5. Additional replications of this study or with some variations involving judgments by principals or achievement of pupils as criteria could be perhaps valuable.

6. At least three types of experimental study are suggested:

   a. Utilizing the conceptual model in which professional teachers are seen to identify with teaching much earlier and continue this identification longer, attempts might be made to obtain early commitments (at high school level, or during the first year of college) and follow these persons in comparison to a randomly selected group not so committed to determine possible effects of such early, consciously-made commitments to teaching.

   b. Experimentation could be made to evaluate programs to encourage and make it possible for young persons to begin as teacher aides, attend part-time college classes and during the summer, move upward as teacher assistants, combining certain features of job training with college attendance, and eventually enter teaching as "experienced" beginners. Already some programs in a few areas, including the Atlanta schools, are undertaking such programs. They should be carefully evaluated.

   c. If there is validity to the three major dimensions of teacher behavior as identified by Ryans and applied also in this study - the X_o (warm *versus* cold and aloof), Y_o (businesslike *versus* slipshod), and Z_o (stimulating, imaginative *versus* dull, routine) - would there be value in teaching for these characteristics, attempting to inculcate or develop by deliberate education in a "self-conscious" way these very virtues? It is already known

> that to some extent many personality characteristics are learned, and findings of psychologists utilizing operant conditioning techniques as well as other learning techniques suggest the feasibility of such an approach. Perhaps the development of the teacher's unique style of teaching could be a part of such an experimental procedure.

Recommendations. The following recommendations for additional research seem to be warranted from the findings and implications of this project.

1. Research is needed to determine ways in which the image of the teacher can be enhanced so as to attract the "kinds of persons" needed as teachers.
2. Research is needed to determine if the provision of auxiliary services to teachers makes any contribution toward attracting persons to the teaching profession.
3. Research is needed to determine the kinds of programs needed to recruit persons for and retain them in the teaching profession.
4. Research is needed to determine the kind and quality of pre-teaching experiences needed by prospective teachers, and to explore means by which these experiences may be provided.
5. Research is needed into the changing role of the teachers as a member of a team working with various types of helping personnel.

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Teacher Education Research Project
University of Georgia

Doctoral Dissertations

1965

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Pending

Stallings, Charles D. Multiple-Discriminant Analysis of Teacher Behavior and Pupil Perceptions of Contrasting Groups of Beginning Teachers.

Wallis, Austine H. An Evaluation of the Georgia Grants-in-Aid for In-Service Study.

GEORGIA STUDY OF BEGINNING TEACHERS

Please do not write in this space

We are engaged in a study of all teachers in Georgia who are teaching for the first full year this year. Our purposes are to determine your appraisals of your college preparation, your teaching experience, and your impressions of your problems. Your thoughtful response to the questions and statements below will be of great help and will be much appreciated. Most statements require only a check. All information will be treated as confidential, and only general conclusions representing group data will be reported.

Please accept our thanks for taking a few minutes to fill in the indicated blanks and for returning the questionnaire in the enclosed addressed envelope.

Joseph C. Bledsoe
College of Education
University of Georgia

A. GENERAL INFORMATION

Name ______ Sex ______ 1-5

School system in which you are employed ______ 6-8

College or University from which you graduated ______ 9-10

Degree ______ Year ______ 11-13

Major ______ Minor ______ 14-17

Did you do student (practice) teaching? Yes ______ No ______ 18

Georgia Certificate Number ______ Type ______ Date Issued ______ 19-26

Subject(s) covered ______ 27-28

At what level(s) are you teaching? Primary (1-3) ______ Elementary (4-6) ______

Junior High (7-8) ______ High School ______ 29

If teaching at the secondary level (or departmental work at elementary level), what subject or subjects are you teaching? (Check more than one if applicable)

English ______ Social Studies ______ Foreign Language (any) ______ 30-31

Science ______ Mathematics ______ Vocational Agriculture ______

Music ______ Home Economics ______ Business courses ______

Art ______ Industrial Arts ______ Health and Phy. Ed. ______

Special Education ______ Speech or Speech Correction ______ Other (Specify) ______

Your age: 20-24 ______ 25-29 ______ 30-34 ______ 35-39 ______ 40-49 ______ 50 and over ______ 32

Marital status: Single ______ Married ______ Widowed ______ Divorced ______ 33

Number of children (if any) ______ 34

Occupation of spouse (if married) ______ 35

B. YOUR CHOICE OF VOCATION

Please indicate your answer to each of the following questions by checking the appropriate space.

1. When did you first consider teaching as a career? 36
   Before high school ______ During high school ______ During first two years of college ______ Junior year of college ______ Senior year of college ______ After graduation ______ Other (Specify) ______
2. Was teaching your first choice as a career? Yes ______ No ______ 37
3. Which factor in each of the following lists influenced you most to choose teaching as a career?

External Factors

______ a. Elementary teacher inspired it 38
______ b. High school teacher suggested it
______ c. College teacher recommended it
______ d. College administrator or counselor encouraged it
______ e. Parents favored the choice
______ f. Friend or relative encouraged me
______ g. Other (Specify) ______

Internal Factors

______ a. I became so interested in the subject that I wanted to teach it 39
______ b. I desired to work with children
______ c. I wanted a job with security and prestige
______ d. I felt that I could make the greatest contribution to society by teaching
______ e. I desired to emulate a former teacher
______ f. Other (Specify) ______

4. How did you regard teaching as a career for yourself at the time you graduated from college? 40

______a. Highly attractive
______b. Fairly attractive
______c. Had no opinion
______d. Fairly unattractive
______e. Highly unattractive

C. YOUR TEACHER PREPARATION PROGRAM

By checking the appropriate space for each item, please indicate the degree to which you feel your college experiences were satisfactory in equipping you with the necessary skills and understandings of the following:

	Very Unsatisfactory	Somewhat Unsatisfactory	Neither satisfactory nor Unsatisfactory	Fairly Satisfactory	Very Satisfactory	
1. Your teaching personality:						
a. Ability to work with children	____	____	____	____	____	41
b. Ability to work with colleagues	____	____	____	____	____	42
c. Ability to work with members of the community	____	____	____	____	____	43
d. Ability to maintain a friendly disposition	____	____	____	____	____	44
e. Ability to lead a well-rounded life: to enjoy work and play	____	____	____	____	____	45
2. Your general knowledge and understanding of:						
a. The physical sciences	____	____	____	____	____	46
b. The biological sciences	____	____	____	____	____	47
c. American culture and institutions	____	____	____	____	____	48
d. Art, music, literature, philosophy	____	____	____	____	____	49
3. Your ability to use the English language effectively:	____	____	____	____	____	50
4. Your knowledge and understanding of the subject areas which you teach	____	____	____	____	____	51
5. Your understanding of children and youth:						
a. Insight into causes of behavior	____	____	____	____	____	52
b. Skill in working with exceptional children: the bright, the dull, the handicapped	____	____	____	____	____	53
c. Skill in group work	____	____	____	____	____	54
d. Skill in maintaining discipline	____	____	____	____	____	55
6. Your understanding of the nature of the learning process:						
a. Skill in helping students determine objectives	____	____	____	____	____	56
b. Skill in motivating students	____	____	____	____	____	57
c. Skill in pupil-teacher planning	____	____	____	____	____	58
d. Skill in using a variety of teaching methods	____	____	____	____	____	59
e. Skill in evaluating pupil growth and class procedures with pupils	____	____	____	____	____	60
f. Ability to construct appropriate tests and learning materials	____	____	____	____	____	61
7. Your knowledge of sources of teaching materials:						
a. Printed materials	____	____	____	____	____	62
b. Audio-visual materials	____	____	____	____	____	63
c. Community resources and materials	____	____	____	____	____	64
8. Your ability to use teaching materials effectively	____	____	____	____	____	65
9. Your knowledge and understanding of the community:						
a. The purposes of the school in relation to the over-all purposes of society	____	____	____	____	____	66
b. The social structure of the community and its meaning for education	____	____	____	____	____	67
c. The institutions of the community	____	____	____	____	____	68
d. The different value-patterns of social-economic classes	____	____	____	____	____	69
e. The economic life of the community	____	____	____	____	____	70

10. Your evaluation of the following teacher preparation experiences:	Very Unsatisfactory	Somewhat Unsatisfactory	Neither satisfactory nor Unsatisfactory	Fairly Satisfactory	Very Satisfactory	
a. Student teaching (if applicable)	____	____	____	____	____	71
b. Observing other teachers	____	____	____	____	____	72
c. Subject matter courses	____	____	____	____	____	73
d. Psychology courses	____	____	____	____	____	74
e. Teaching methods courses	____	____	____	____	____	75
f. Professional practicums and seminars	____	____	____	____	____	76
g. Professional education courses	____	____	____	____	____	77

11. What suggestions do you have for improving your teacher education program? ____________ 78-79

____________ 80

D. YOUR TEACHING EXPERIENCE

Please check the appropriate space to indicate your answer to each question.

1. How did you get your teaching job? 9

____________ a. Commercial employment agency

____________ b. Placement agency of college or university

____________ c. Placement agency of teachers' association

____________ d. Personal application

____________ e. Other (Specify) ____________

2. Were you assigned to the job that you were promised? Yes ____________ No ____________ 10

3. If not, were you disappointed? Yes ____________ No ____________ 11

4. When you first started to work, what was the general attitude of the other classroom teachers toward you?
Friendly ____________ Indifferent ____________ Unfriendly ____________ 12

5. Did you encounter any conflict between the ideas and philosophy you had formed while in college and the ideas and philosophy of your principal?
None ____________ Some ____________ Much ____________ Don't Know ____________ 13

6. What orientation to your teaching responsibilities have you had on the local level? 14

____________ a. Meeting of all new teachers in system

____________ b. Planned, systematic series of long range meetings

____________ c. "Big brother" (or sister) plan

____________ d. Brief orientation by principal

____________ e. Other (Specify) ____________

7. Do you consider this orientation adequate? Yes ____________ No ____________ 15

8. How much help have you received in each of the following since you have been teaching?	None	Some	Much	
a. Understanding the goals of the school	____	____	____	16
b. Developing better personal qualities as a teacher—voice, poise, emotional control, etc.	____	____	____	17
c. Understanding and using special school services—standardized test results, remedial reading, psychologist, etc.	____	____	____	18
d. Keeping and making out official records and reports	____	____	____	19
e. Understanding and using courses of study and curriculum guides	____	____	____	20
f. Making effective use of community resources	____	____	____	21
g. Handling disciplinary problems	____	____	____	22
h. Planning for and working with gifted and retarded children	____	____	____	23
i. Getting acquainted with the community and its people	____	____	____	24
j. Understanding your extracurricular activities	____	____	____	25

9. To what extent have you received help with the items mentioned above from the persons listed below?

	None	Some	Much	
a. Principal	____	____	____	26
b. Supervisor or consultant	____	____	____	27
c. Fellow classroom teachers	____	____	____	28
d. Visiting teacher	____	____	____	29
e. Counselor	____	____	____	30
f. Superintendent	____	____	____	31
g. Student	____	____	____	32

10. Do you feel that your community expects too much of you personally? Yes________ No________ 33

11. Do you feel that your community expects too much of you professionally? Yes________ No________ 34

12. To what degree do you feel that you are socially accepted? 35

________ a. Warmly received
________ b. Accepted
________ c. Partially accepted
________ d. Ignored
________ e. Partially rejected
________ f. Rejected

13. How does your teaching assignment compare with that of the more experienced teachers of the same grade or subject?

More difficult________ About the same________ Less difficult________ 36

14. Do you think that your salary as a beginning teacher is adequate? Yes________ No________ 37

15. Do you supplement your income by working at another job? Yes________ No________ 38

16. Are you presently enrolled in a formal college course? Yes________ No________ 39

17. Which of the following best describes your present attitude toward teaching? 40

________ a. Very much dissatisfied
________ b. Dissatisfied
________ c. Indifferent
________ d. Satisfied
________ e. Very much satisfied

18. To what extent has each of the following professional activities been a matter of concern or anxiety to you in your first year of experience?

	None	Some	Much	
a. Keeping abreast of recent professional developments	____	____	____	41
b. Evaluating pupil progress	____	____	____	42
c. Using teaching aids	____	____	____	43
d. Planning learning activities with students	____	____	____	44
e. Keeping and preparing records and reports	____	____	____	45
f. Understanding the goals of the school	____	____	____	46
g. Handling disciplinary problems	____	____	____	47
h. Working with exceptional children	____	____	____	48
i. Understanding and using courses of study and curriculum guides	____	____	____	49
j. Motivating pupils who seem disinterested	____	____	____	50
k. Relating to parents	____	____	____	51
1. Making effective use of community resources	____	____	____	52
m. Getting acquainted with the community	____	____	____	53

19. How long do you plan to continue teaching?

One year________ 2-5 years________ 6-10 years________ 11-20 years________ Over 20 years________ 54

20. If you expect to teach less than five years, do you plan to return to teaching later? Yes________ No________ 55

21. If you do not plan to stay in the teaching profession, why are you leaving it?________ 56-57

____

22. What has been your greatest satisfaction in teaching so far?________ 58-59

____

23. What has been your greatest dissatisfaction in teaching so far?________ 60-61

____

24. What has been your greatest surprise in teaching so far?________ 62-63

________ 80

THE GEORGIA STUDY OF BEGINNING TEACHERS
UNIVERSITY OF GEORGIA

A. GENERAL INFORMATION

I. Instructions: Please check the appropriate blank unless asked to "specify."

Sex: Male ______ Female ______

Size school system in which employed (1964-65):
Fewer than 3,000 students ____
3,000 to 9,999 students ____
More than 10,000 students ____

Type college you attended:

			Enrollment:
University:	State____		Over 10,000_____
	Private___		5,000-9,999_____
			below 5,000_____
College:	State____		Over 10,000_____
	Private___		5,000-9,999_____
			below 5,000_____

Degree: Yes____ No____ Type Degree: A.B.___ B.S.___ Other (Specify)____

Major: (Specify)__________ Minor: (Specify)__________ Year Graduated:________

Did you do student (practice) teaching? Yes____ No____

Type of Georgia Certificate: T-4____ B-4____ T-5____ B-5____ Other (Specify)____

At what level did you teach in 1964-65? Primary(1-3)____ Elem.(4-6)____
Jr. Hi.(7-8)____ High School(9-12)____ Other (Specify)________________

If teaching was at secondary level (or department work at other level) what subject(s) did you teach? (Check more than one if applicable.)

English	____	Music	____	Foreign Language (any)	____
Mathematics	____	Soc. Science	____	Industrial Arts	____
Science	____	Voc. Ag.	____	Special Education	____
Art	____	Health & PE	____	Home Economics	____

Other (Specify)____

Age: 20-24___ 25-29___ 30-34___ 35-39___ 40-44___ 45-49___ Over 50____

Marital Status: Single____ Married ____ Widowed ____ Divorced ____

If Married: Number of children (Specify)____ Occupation of Spouse(Specify)______

Educational level of parents:
Father: Grade 8 or below___ High School___ Coll.__
Mother: Grade 8 or below___ High School___ Coll.__

II. Check or complete as needed:

		Yes	No
1.	Did you receive the teaching assignment you expected in 1964-65?	___	___
2.	Are you now teaching?	___	___
3.	If you are employed, is your salary more than it was as a teacher?	___	___
4.	Do you plan to teach again?	___	___

5. If you are now teaching, please give name of state in which employed.___________

6. Why did you quit teaching in Georgia? (a)family moved___ (b)maternity___ (c)changed professions___ (d)returned to college___ (e) other___

7. If answer to No. 6 was (c), what profession did you enter? __________________

8. If answer to No. 6 was (e), what was your reason? __________________________
____

Please turn the page.

Do not write in this space

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__
80

B. TEACHING APPRAISAL SCHEDULE

Below you will find 73 statements. You are requested to check the most appropriate one of the columns to indicate your degree of agreement or disagreement with the statement as you interpret it. If you are not certain about agreement or disagreement, then check under the column "Uncertain", but try to limit your "Uncertain" responses to five. Please answer each as honestly and candidly as possible. Do not skip an item or go back and change an item. Let your first response stand, and do not spend much time on any item. Thank you for your help.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	Do not write in this space
						1-4
1. If I had a daughter entering college, I would encourage her to become a teacher.						5
2. If I had a son entering college, I would encourage him to become a teacher.						6
3. I would prefer my close personal friends to be from the teaching profession rather than from the business world.						7
4. I would like to teach again.						8
5. Most people can be trusted.						9
6. As a teacher, I had many opportunities for social contacts with attractive single adults of the opposite sex.						10
7. As a teacher, I had a feeling of self-satisfaction at the end of the day.						11
8. As a teacher, I had a feeling of pride in saying that teaching was my profession.						12
9. As a teacher, I felt it my duty to participate in professional educational organizations.						13
10. As a teacher, I felt it a privilege to participate in professional educational organizations.						14
11. As a teacher, I took pride in my work.						15
12. As a teacher, I had no serious discipline problems.						16
13. As a teacher, I seldom got "up-set" with the students.						17
14. As a teacher, I respected each child.						18
15. As a teacher, I enjoyed the students.						19
16. As a teacher, I encouraged students to disagree with an author or another person so long as they showed evidence of study and thought on the issue.						20
17. As a teacher, I was not embarrassed to say, "I do not know the answer to that".						21
18. As a teacher, I felt adequately prepared to understand the students' problems.						22
19. A person can't be too careful in his dealings with other people.						23
20. Most students are sincere in their efforts to learn.						24
21. Most students are better scholars than I had expected them to be.						25
22. Most students respect teachers.						26
23. All students should pass the work of the grade before they are promoted.						27

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	Do not write in this space.
24. Most students do a sincere job when they are given a chance to help plan the class work.						28
25. Most students take pride in the neatness and attractiveness of the school.						29
26. Students must be kept at a "proper" distance if the teacher is to maintain discipline.						30
27. Human nature is fundamentally cooperative.						31
28. Parents did not expect the school to teach morals as well as subjects.						32
29. Parents were cooperative in school policies.						33
30. When you get right down to it, no one really cares what happens to you.						34
31. Parents taught the children to respect the rights and property of others.						35
32. Parents were friendly with me.						36
33. Parents allowed me to live my personal life without interference or implications.						37
34. Parents wanted their children to learn the school work.						38
35. I was adequately prepared to teach the subjects I taught.						39
36. I was adequately prepared to maintain good discipline in the classroom.						40
37. I was adequately prepared to understand the children with whom I worked.						41
38. I was adequately prepared to work with the child who had physical handicaps.						42
39. I was adequately prepared to work with the child who had emotional problems.						43
40. I was adequately prepared to challenge all of my students.						44
41. I was adequately prepared to help students understand current issues of world affairs.						45
42. If you don't watch yourself, people will take advantage of you.						46
43. Teachers are free to function in the political life of the community.						47
44. Teachers are free to attend dances and social clubs of the community.						48
45. Teachers are granted the same personal freedom as lawyers, doctors, and other professional groups.						49
46. The community appreciate teachers and recognizes their worth.						50
47. Working with students is a joy.						51
48. A teacher should know all of his students' homes and environments.						52
49. Teachers strive to help every child reach his potential.						53
50. Most teachers enjoy working with the "slow" learners as well as with the "fast" learners.						54
51. Most people are more inclined to help others than they are to look out for themselves.						55

		Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	Do not write in this space.
52.	I was pleased with the personnel policies of the school system in which I taught.	____	____	____	____	____	56
53.	I was pleased with the curricula planning in the school system in which I taught.	____	____	____	____	____	57
54.	I was pleased with the assignment of duties in the system in which I taught.	____	____	____	____	____	58
55.	I was pleased with the equipment and resources of the school system in which I taught.	____	____	____	____	____	59
56.	I found the working conditions of the school satisfactory.	____	____	____	____	____	60
57.	I would like to teach in that school again.	____	____	____	____	____	61
58.	I found the experienced teachers very friendly.	____	____	____	____	____	62
59.	I received much help from the experienced teachers.	____	____	____	____	____	63
60.	I found ways to keep the little problems from "piling-up".	____	____	____	____	____	64
61.	The principal wanted my ideas for improving the school.	____	____	____	____	____	65
62.	The principal used my ideas for improving the school.	____	____	____	____	____	66
63.	The salary for teachers is adequate for the training they have.	____	____	____	____	____	67
64.	The salary for teachers is adequate to give them a high standard of living.	____	____	____	____	____	68
65.	The principal was a good leader.	____	____	____	____	____	69
66.	The principal was considerate of my personal needs.	____	____	____	____	____	70
67.	The principal was always courteous to the teachers.	____	____	____	____	____	71
68.	The principal was always courteous to the pupils.	____	____	____	____	____	72
69.	The principal explained fully the policies and expectations of the school.	____	____	____	____	____	73
70.	The principal "backed-up" the teacher in disciplinary problems.	____	____	____	____	____	74
71.	The principal was a democratic leader.	____	____	____	____	____	75
72.	The supervisory personnel helped me.	____	____	____	____	____	76
73.	I would like to teach in Georgia again.	____	____	____	____	____	77

Were there any problems you encountered as a teacher that are not covered in the 73 statements? If so, please list them below. 78

What suggestions do you have for making teaching in Georgia a more attractive career? 79

80

GEORGIA STUDY OF BEGINNING TEACHERS

Please do not write in this space.

For the past three years a research team at the University of Georgia has been engaged in research on Georgia beginning teachers. Some of you may have participated in 1964-65 by completing a questionnaire related to your choice of teaching, your teacher preparation, and future teaching plans. That information has been most valuable to us. Last year we obtained further helpful information from teachers who dropped out at the end of one year. We need to know the attitudes and feelings of those who have remained in teaching for at least three years. We want to compare your responses to those of teachers who left the profession very early. Already we have learned the vital part played by interpersonal relations in the school.

Your name has been chosen in a random sample to represent your group. Experience in a pilot study has indicated that most persons complete the following appraisal schedule in from 10 to 20 minutes. Replies are confidential and anonymity is assured. You need not sign your name.

Joseph C. Bledsoe
College of Education
University of Georgia

A. BIOGRAPHICAL INFORMATION

1. Sex: Male____ Female____ 2. Marital Status: Single____ Married____ Other____ 1-3 4-5

3. Age: Below 30____; 30 to 39____; 40 to 49____; 50 and up____. 6-8 9-12

4. Enrollment of high school attended: More than 1,000____; 500 to 999____; below 500____. 13-15

5. Type of high school attended: Metropolitan____; Urban____; Rural____. 16-18

6. Have you served in the armed forces? Yes____; No____. 19-20

7. If you had pre-teaching experiences (other than formal training) which provided you with skills and understandings useful in teaching, what was their specific nature?____________________ 21-27

8. Education level of parents: 28-32

Father		Mother
____	to 8th grade	____
____	grades 9 to 11	____
____	high school graduate	____
____	attended college	____
____	college graduate	____

33-37

9. My Bachelor's degree is from a: (a) private college____ (c) state university____
(b) state college____ (d) private university____ 38-41

10. Approximate enrollment of this institution: (a) under 2,000____ (c) 5,000-9,999____
(b) 2,000-4,999____ (d) over 10,000____ 42-45

11. How many quarter hours of college credit have you earned since you began teaching?
(a) None____ (b) 5-10____ (c) 11-20____ (d) 21-30____ (e) 30 or more____ (f) Master's degree____ 46-51

12. What was the primary purpose of this course work? (a) To increase professional competence____
(b) To maintain certificate____ (c) To prepare for another educational position____ 52-56
(d) To prepare for work outside education____ (e) To upgrade certificate____

13. In what area was most of this work taken? (a) subject I teach____ (b) education____
(c) other (please specify)____________________ 57-62

14. If you have not returned to college, which of the above purposes (#12) would be most effective in causing you to re-enter college? (a)____ (b)____ (c)____ (d)____ (e)____ 63-67

15. If you have changed systems since your first year of teaching, is your current system (a) larger____ (b) smaller____ (c) same size____? 68-70

16. Do you teach at the: (a) primary____; (b) elementary____; (c) junior high____; (d) senior high____ level? 71-74

17. If you now teach at the secondary level, or any departmentalized level, what is the subject you teach most? (Please specify)____________________ 75-86

18. How does your current year of teaching compare with your first year? (a) more satisfying____
(b) less satisfying____ (c) equally satisfying____ 87-89

19. How many additional years do you plan to teach? 0___, 1-5___. 6-10___, 10-20___, 20 or more___. 90-94

20. Which of the following would be most effective in causing you to discontinue teaching?
Family moving____ Further education____
Maternity____ Opportunity to change to another profession____ 95-104
Other (Please specify)____________________

Please turn the page.

TAS-2

REVISED TEACHING APPRAISAL SCHEDULE

SI-T

Below you will find 73 statements. You are requested to check the most appropriate one of the columns to indicate your degree of agreement or disagreement with the statement as you interpret it. If you are not certain about agreement or disagreement, then check under the column "Uncertain", but try to limit your "Uncertain" responses to five. Please answer each as honestly and candidly as possible. Do not skip an item or go back and change an item. Let your first response stand, and do not spend much time on any item. Thank you for your help.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	Do not write in this space
						1-4
1. If I had a daughter entering college, I would encourage her to become a teacher.	____	____	____	____	____	5
2. If I had a son entering college, I would encourage him to become a teacher.	____	____	____	____	____	6
3. I would prefer my close personal friends to be from the teaching profession rather than from the business world.	____	____	____	____	____	7
4. I would like to teach again.	____	____	____	____	____	8
5. Most people can be trusted.	____	____	____	____	____	9
6. Single teachers in my school have many opportunities for social contacts with attractive single adults of the opposite sex.	____	____	____	____	____	10
7. As a teacher, I have a feeling of self-satisfaction at the end of the day.	____	____	____	____	____	11
8. As a teacher, I have a feeling of pride in saying that teaching is my profession.	____	____	____	____	____	12
9. As a teacher, I feel it my duty to participate in professional educational organizations.	____	____	____	____	____	13
10. As a teacher, I feel it a privilege to participate in professional educational organizations.	____	____	____	____	____	14
11. As a teacher, I take pride in my work.	____	____	____	____	____	15
12. As a teacher, I have no serious discipline problems.	____	____	____	____	____	16
13. As a teacher, I seldom get "up-set" with the students.	____	____	____	____	____	17
14. As a teacher, I respect each child.	____	____	____	____	____	18
15. As a teacher, I enjoy the students.	____	____	____	____	____	19
16. As a teacher, I encourage students to disagree with an author or another person so long as they show evidence of study and thought on the issue.	____	____	____	____	____	20
17. As a teacher, I am not embarrassed to say, "I do not know the answer to that".	____	____	____	____	____	21
18. As a teacher, I feel adequately prepared to understand the students' problems.	____	____	____	____	____	22
19. A person can't be too careful in his dealings with other people.	____	____	____	____	____	23
20. Most students are sincere in their efforts to learn.	____	____	____	____	____	24
21. Most students are better scholars than I had expected them to be.	____	____	____	____	____	25

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	Do not write in this space.
22. Most students respect teachers.	___	___	___	___	___	26
23. All students should pass the work of the grade before they are promoted.	___	___	___	___	___	27
24. Most students do a sincere job when they are given a chance to help plan the class work.	___	___	___	___	___	28
25. Most students take pride in the neatness and attractiveness of the school.	___	___	___	___	___	29
26. Students must be kept at a "proper" distance if the teacher is to maintain discipline.	___	___	___	___	___	30
27. Human nature is fundamentally cooperative.	___	___	___	___	___	31
28. Parents do not expect the school to teach morals as well as subjects.	___	___	___	___	___	32
29. Parents are cooperative in school policies.	___	___	___	___	___	33
30. When you get right down to it, no one really cares what happens to you.	___	___	___	___	___	34
31. Parents teach the children to respect the rights and property of others.	___	___	___	___	___	35
32. Parents are friendly with me.	___	___	___	___	___	36
33. Parents allow me to live my personal life without interference or implications.	___	___	___	___	___	37
34. Parents want their children to learn the school work.	___	___	___	___	___	38
35. I am adequately prepared to teach the subjects I teach.	___	___	___	___	___	39
36. I am adequately prepared to maintain good discipline in the classroom.	___	___	___	___	___	40
37. I am adequately prepared to understand the children with whom I work.	___	___	___	___	___	41
38. I am adequately prepared to work with the child who has physical handicaps.	___	___	___	___	___	42
39. I am adequately prepared to work with the child who has emotional problems.	___	___	___	___	___	43
40. I am adequately prepared to challenge all of my students.	___	___	___	___	___	44
41. I am adequately prepared to help students understand current issues of world affairs.	___	___	___	___	___	45
42. If you don't watch yourself, people will take advantage of you.	___	___	___	___	___	46
43. Teachers are free to function in the political life of the community.	___	___	___	___	___	47
44. Teachers are free to attend dances and social clubs of the community.	___	___	___	___	___	48
45. Teachers are granted the same personal freedom as lawyers, doctors, and other professional groups.	___	___	___	___	___	49
46. The community appreciates teachers and recognizes their worth.	___	___	___	___	___	50
47. Working with students is a joy.	___	___	___	___	___	51
48. A teacher should know all of his students' homes and environments.	___	___	___	___	___	52
49. Teachers strive to help every child reach his potential.	___	___	___	___	___	53
50. Most teachers enjoy working with the "slow" learners as well as with the "fast" learners.	___	___	___	___	___	54

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree	Do not write in this space.
51. Most people are more inclined to help others then they are to look out for themselves.						55
52. I am pleased with the personnel policies of the school system in which I teach.						56
53. I am pleased with the curricula planning in the school system in which I teach.						57
54. I am pleased with the assignment of duties in the system in which I teach.						58
55. I am pleased with the equipment and resources of the school system in which I teach.						59
56. I find the working conditions of the school satisfactory.						60
57. I would like to teach in this school again.						61
58. I find the more experienced teachers friendly.						62
59. I receive much help from the more experienced teachers.						63
60. I find ways to keep the little problems from "piling-up".						64
61. The principal wants my ideas for improving the school.						65
62. The principal uses my ideas for improving the school.						66
63. The salary for teachers is adequate for the training they have.						67
64. The salary for teachers is adequate to give them a high standard of living.						68
65. The principal is a good leader.						69
66. The principal is considerate of my personal needs.						70
67. The principal is always courteous to the teachers.						71
68. The principal is always courteous to the pupils.						72
69. The principal explains fully the policies and expectations of the school.						73
70. The principal "backs-up" the teacher in disciplinary problems.						74
71. The principal is a democratic leader.						75
72. The supervisory personnel help me.						76
73. I would like to teach in Georgia again.						77

Are there any problems you have encountered as a teacher that are not covered in the 73 statements? If so, please list them below. 78

What suggestions do you have for making teaching in Georgia a more attractive career? 79

80